GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

SUMMARY PAGE

Permittee - Facility: Effingham County Board of Commissioners – South Water Reclamation Facility

NPDES Permit No.: GA0050361

This is the issuance of a new NPDES permit for the South WRF. Up to 1.6 MGD (monthly average) of treated domestic wastewater will be discharged to Ogeechee River in the Ogeechee River Basin. The permit also includes effluent limitations and monitoring requirements for the land application of up to 0.272 MGD of treated domestic wastewater on a dedicated site (sprayfield) and the distribution of treated domestic wastewater to reuse customers.

The facility is currently permitted to land apply up to 0.272 MGD of treated domestic wastewater on a dedicated site (sprayfield) and to distribute up to 1.0 MGD of treated domestic wastewater to reuse customers under LAS Permit No. GAJ020016. This permit will be terminated upon authorization to operate under NPDES Permit No. GA0050361. The draft permit was issued on June 13, 2025 and the public comment period ended on July 16, 2025.

Final Permit Determinations and Public Comments:

☐ Final issued permit did not change from the draft permit placed on public notice.
☒ Public comments were received during public notice period.
☐ Public hearing was held on
☒ Final permit includes changes from the draft permit placed on public notice. See attached permit revisions and/or permit fact sheet revisions.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Jeffrey W. Cown, Director

EPD Director's Office
2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

08/26/2025

Honorable Wesley Corbitt, Chairman
Effingham County Board of Commissioners
804 South Laurel Street
Springfield, Georgia 31329

RE: Permit Issuance
South Water Reclamation Facility (WRF)
NPDES Permit No. GA0050361
Effingham County, Ogeechee River Basin

Dear Chairman Corbitt:

Pursuant to the Georgia Water Quality Control Act, as amended; the Federal Water Pollution Control Act, as amended; and the Rules and Regulations promulgated thereunder, we have today issued the attached National Pollutant Discharge Elimination System (NPDES) permit for the referenced wastewater treatment facility.

Your facility has been assigned to the following EPD office for reporting and compliance:

Georgia Environmental Protection Division
Coastal District
1050 Canal Road
Brunswick, GA 31525

Please be advised that on and after the effective date indicated in the attached NPDES permit, you must comply with all the terms, conditions and limitations of this permit. If you have questions about the permit, please contact Alex Gramling of my staff at (470) 524-0657 or *alex.gramling@dnr.ga.gov*.

Sincerely,

Jeffrey W. Cown

Jeffrey W. Cown
Director

JWC\atg
Attachment: Response to Comments, Permit Revisions, Fact Sheet Revisions, NPDES Permit No. GA0050361, Fact Sheet
cc: Beth Willis-Stevenson, EPD Coastal District (*Beth.Stevenson@dnr.ga.gov*)
Tim Callanan, Effingham County (*TCallanan@effinghamcounty.org*)
Jonathan Hulme, Effingham County (*jhulme@effinghamcounty.org*)
Chris Burke, Hussey Gay Bell (*cburke@husseygaybell.com*)
G.C. Kimbrell, Hussey Gay Bell (*gkimbrell@husseygaybell.com*)
Josh Welte, EPD Water Quality Modeling Unit (*josh.welte@dnr.ga.gov*)
Tyler Parsons, EPD TMDL Modeling & Development Unit (*tyler.parsons@dnr.ga.gov*)
EPA Region IV Mailbox (*R4NPDESPermits@epa.gov*)

Public Comments and EPD Responses on Draft Permit
South Water Reclamation Facility
NPDES Permit No. GA0050361

Comment	Response to Comment
The permit leaves discrepancies about the volume to be permitted for reuse. Section 5.2 notes that a maximum of 1.6 MGD will be permitted under this permit, with an additional 0.272 MGD for land application. However, no explicit limit for reuse is given here or anywhere else in the permit, beyond the 3.0 MGD maximum for the whole permit. ORK asks the permit terms explicitly clarify that, if reuse customer demand exists, the entirety of the 3.0 MGD may be distributed to through the reuse system.	To improve permit clarity, a numerical flow limit of 3.0 MGD has been added under Part I.B.3. Footnotes have also been added under Parts I.B.1, I.B.2, and I.B.3 specifying that the combined flow to the Ogeechee River, reuse distribution system, and land application site (i.e., effluent flow from the mechanical plant) shall not exceed 3.0 MGD, which is the design capacity of the plant.
ORK requests that the permit also includes terms that create a prioritization system for the effluent. Specifically, ORK asks that treated effluent is distributed through the reuse system before discharges are sent to either the land application system or directly discharged to the Ogeechee River, whenever reuse customer demand exists. Similarly, discharges should be sent to the land application system before direct discharges to the Ogeechee. Only when there is no reuse customer demand and no remaining land application capacity exists should the treated effluent be directly discharged to the Ogeechee River.	A footnote specifying that the permittee must maximize the distribution of reuse water and the use of the land application site, when possible, prior to discharging to the Ogeechee River has been included in the draft permit under Part I.B.1. to satisfy EPD's *Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion*, 2006 and antidegradation requirements.

There is uncertainty around the use and inclusion of Water Quality Based Effluent Limitations (WQBELs) in NPDES permits following the U.S. Supreme Court's decision in *San Francisco v. EPA*. In this decision, the Supreme Court holds that "[33 U.S.c] §1311(b)(1)(C) does not authorize the EPA to include "end-result" provisions in NPDES permits." The Court defines these "end-result" requirements as "provisions that do not spell out what a permittee must do or refrain from doing," but rather "make a permittee responsible for the quality of the water in the body of water into which the permittee discharges pollutants." Instead of the permittee's responsibility for the end-result requirement, the Court states that it is the EPA (and, therefore, the states authorized to issue NPDES permits through their environmental departments, *i.e.* Georgia and the EPD) to determine "what steps a permittee must take to ensure that water quality standards are met." Under these instructions, it is unclear whether WQBELs are allowed to be used or included under this new interpretation of 33 U.S.C. § 1311(b)(1)(C). The WQBELs do not instruct the permittee about "what steps [it] must take to ensure that water quality standards are met," and appear to focus only on the end results. ORK urges EPD to consider whether these WQBELs should be included in this NPDES permit and any future permit. Further, EPD must still be mindful of its continuing duty to meet water quality standards when issuing NPDES permits in this changing legal landscape. If WQBELs cannot be used or included, EPD must determine whether the remaining permit terms are sufficient to ensure that water quality standards will still be met. If the remaining permit terms cannot achieve this requirement, EPD cannot issue the permit. ORK strongly urges EPD to fully consider its permitting strategy and approach in light this recent Supreme Court decision.	EPD believes Water Quality Based Effluent Limitations (WQBELs) can be included in this NPDES permit and any future permits because they are legal numeric limitations applying to the effluent. Per Chapter 391-3-6-.06.(2)(g) of the State Rules, "effluent limitation means any restriction or prohibition established under the Act on quantities, rates, or concentrations, or a combination thereof, of chemical, physical, biological, or other constituents which are discharged from point sources into the waters of the State, including, but not limited to, schedules of compliance and whole effluent biological monitoring requirements". Specifically, WQBELs are effluent limits that ensure that the discharge from the facility is protective of the Water Quality Standards in the receiving stream and are not end-result requirements.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Revisions to Draft Permit

Name of Facility: Effingham County Board of Commissioners – South Water Reclamation Facility

NPDES Permit No.: GA0050361

Were there any revisions between the draft proposed NPDES permit placed on public notice and the final proposed NPDES permit? ☒ Yes (Specify below) ☐ No

The following specific revisions were made to the proposed permit:

Part I.B.1. Included a footnote which requires that the combined flow to the Ogeechee River, reuse distribution system and land application site (i.e. effluent flow from the mechanical plant) shall not exceed 3.0 MGD (monthly average).

Included a footnote which requires that the permittee must maximize the distribution of reuse water and the use of the land application site, when possible, prior to discharging to the Ogeechee River.

Part I.B.2. Included a footnote which requires that the combined flow to the Ogeechee River, reuse distribution system and land application site (i.e. effluent flow from the mechanical plant) shall not exceed 3.0 MGD (monthly average).

Part I.B.3. Included a numeric limit of 3.0 MGD (monthly average) for distribution to reuse customers.

Included a footnote which requires that the combined flow to the Ogeechee River, reuse distribution system and land application site (i.e. effluent flow from the mechanical plant) shall not exceed 3.0 MGD (monthly average).

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Revisions to Fact Sheet

Name of Facility: Effingham County Board of Commissioners – South Water Reclamation Facility

NPDES Permit No.: GA0050361

Were there any revisions between the draft and the final fact sheet? ☒ Yes ☐ No

If yes, specify:

Section 1.5. Included a numeric limit of 3.0 MGD (monthly average) for distribution to reuse customers.

Permit No. GA0050361
Issuance Date: 08/26/2025

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Effingham County Board of Commissioners
804 South Laurel Street
Springfield, Georgia 31329

is authorized to discharge from a facility located at

South Water Reclamation Facility
805 Low Ground Road
Guyton, Georgia 31312
(Effingham County)

to receiving waters

Ogeechee River
(Ogeechee River Basin)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on April 3, 2025, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This permit shall become effective on September 1, 2025.

This permit and the authorization to discharge shall expire at midnight, August 31, 2030.

STATE OF GEORGIA
CONSTITUTION
WISDOM JUSTICE MODERATION
1776

Jeffrey W. Cown

Director,
Environmental Protection Division

PART I

EPD is the Environmental Protection Division of the Department of Natural Resources.

The Federal Act referred to is The Clean Water Act.

The State Act referred to is The Water Quality Control Act (Act No. 870).

The State Rules referred to are The Rules and Regulations for Water Quality Control (Chapter 391-3-6).

A. SPECIAL CONDITIONS

1. SLUDGE DISPOSAL REQUIREMENTS

Sludge shall be disposed of according to the regulations and guidelines established by the EPD and the Federal Act section 405(d) and (e), and the Resource Conservation and Recovery Act (RCRA). In land applying nonhazardous municipal sewage sludge, the permittee shall comply with the general criteria outlined in the most current version of the EPD "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. Before disposing of municipal sewage sludge by land application or any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to EPD for written approval. This plan will become a part of the NPDES Permit after approval and modification of the permit. The permittee shall notify the EPD of any changes planned in an approved sludge management plan.

If an applicable management practice or numerical limitation for pollutants in sewage sludge is promulgated under Section 405(d) of the Federal Act after approval of the plan, then the plan shall be modified to conform with the new regulations.

2. SLUDGE MONITORING REQUIREMENTS

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor and maintain records documenting the quantity of sludge removed from the facility. Records shall be maintained documenting that the quantity of solids removed from the facility equals the solids generated on an average day. The total quantity of sludge removed from the facility during the reporting period shall be reported each month with the Discharge Monitoring Reports as required under Part I.D.1. of this permit. The quantity shall be reported on a dry weight basis (dry tons).

3. INTRODUCTION OF POLLUTANTS INTO THE PUBLICLY OWNED TREATMENT WORKS (POTW)

The permittee must notify EPD of:

a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the Federal Act if the pollutants were directly discharged to a receiving stream; and

b. Any substantial change in the volume or character of pollutants from a source that existed when the permit was issued.

This notice shall include information on the quality and quantity of the indirect discharge introduced and any anticipated impact on the quantity or quality of effluent to be discharged from the POTW.

4. EFFLUENT TOXICITY AND BIOMONITORING REQUIREMENTS

The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with Chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, the EPD may require the permittee to perform any of the following actions:

a. Acute biomonitoring tests;

b. Chronic biomonitoring tests;

c. Stream studies;

d. Priority pollutant analyses;

e. Toxicity reduction evaluations (TRE); or

f. Any other appropriate study.

The EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by the EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the permitted monthly average flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

The permittee must eliminate effluent toxicity and supply the EPD with data and evidence to confirm toxicity elimination.

5. LAND APPLICATION SYSTEM

a. Definitions

i. “Hydraulic Loading Rate” means the rate at which wastes or wastewaters are discharged to a land disposal or land treatment system, expressed in volume per unit area per unit time or depth of water per unit of time.

ii. "Land Disposal System" means any method of disposing of pollutants in which the pollutants are applied to the surface or beneath the surface of a parcel of land and which results in the pollutants percolating, infiltrating, or being absorbed into the soil and then into the waters of the State. Land disposal systems exclude landfills and sanitary landfills but include ponds, basins, or lagoons used for disposal of wastes or wastewaters, where evaporation and/or percolation of the wastes or wastewaters are used or intended to be used to prevent point discharge of pollutants into waters of the State. Septic tanks or sewage treatment systems, as defined in Chapter 511-3-1-.02 (formally in Chapter 270-5-25-.01) and as approved by appropriate County Boards of Public Health, are not considered land disposal systems for purposes of Chapter 391-3-6-.11.

iii. "Land Treatment System" means any land disposal system in which vegetation on the site is used for additional treatment of wastewater to remove some of the pollutants applied.

iv. "Point Source" means any discernible, confined, or discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

v. "Spray Field" means the wetted area of the land treatment system or land disposal system where treated wastes, treated effluent from industrial processes, agricultural or domestic wastewater, domestic sewage sludge, industrial sludge or other sources is applied to the land via spray, excluding the buffer zone.

vi. "Treatment System" means the wastewater treatment facility which reduces high strength organic waste to low levels prior to the application to the spray field.

vii. "Water" or "Waters of the State" means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, and all other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the State which are not entirely confined and retained completely upon the property of a single individual, partnership, or corporation.

b. Monitoring Well Requirements

The permittee, upon written notification by the EPD, may be required to install groundwater monitoring wells at the existing land treatment system. This requirement may apply if monitoring wells were not included in the original design of the facility and also, if the EPD determines the existing groundwater monitoring wells are not adequate.

c. Groundwater Requirements

i. If any groundwater samples taken from the groundwater monitoring wells at the land treatment system are above the primary maximum contaminant levels for drinking water, the permittee shall immediately develop a plan which will ensure that the primary maximum contaminant levels for drinking water are not exceeded.

ii. If any pollutants which are being discharged to the land treatment system are detected in the groundwater samples taken from the compliance monitoring wells at the land treatment system in amounts or concentrations which could be toxic or otherwise harmful to humans or biota if those pollutants mingle with waters of the State, then the permittee shall immediately develop a plan which will reduce the amounts or concentrations of the pollutants to ensure they are not toxic or otherwise harmful to humans or biota if those pollutants mingle with waters of the State.

d. No Point Source Discharge(s) of a Pollutant to Surface Waters of the State

Land treatment system permits are not point source discharge permits to surface water regulated under the CWA, but nonpoint source permits regulated under State law. The land treatment system must be operated and maintained to ensure there is no point source discharge(s) of pollutants to surface waters of the State.

6. URBAN WATER REUSE

a. Definitions

1. Designated User or User: any site or facility, where reclaimed water is beneficially used under a contract with the permittee. User may also be defined as the customer to be supplied with reclaimed water who has a written user agreement with the permittee. In addition, a designated user may also be a purveyor that provides reclaimed water to other customers.

2. Non-restricted Access: landscaped areas where reclaimed wastewater is used for irrigation purposes and public access cannot be controlled and adequate buffer zones cannot be maintained. Reclaimed wastewater used to irrigate non-restricted access areas must be treated to urban water reuse standards.

3. Preapplication Treatment System: the wastewater treatment facility which reduces high strength organic waste to low levels prior to application to the sprayfield area. The preapplication treatment system can consist of a mechanical plant or a pond system.

4. Restricted Access: landscaped areas where reclaimed wastewater is used for irrigation purposes and public access is restricted to specific and controlled periods of time. Wastewater used to irrigate restricted access areas must be pretreated to secondary levels and receive disinfection.

5. Urban Water Reuse: the use of reclaimed water as a substitute for other water sources for the beneficial irrigation of areas that may be accessible to the public, such as golf courses, residential and commercial landscaping, parks, athletic fields, roadway medians, and landscape impoundments.

6. Reclaimed Water: wastewater that has received treatment to urban water reuse standards, meets the treatment criteria specific in the Guidelines for Water Reclamation and Urban Water Reuse, and is utilized at a reuse area or is sent to a designated user for reuse.

7. Reject Water: wastewater that does not meet the 3 NTU criteria or water treated after the disinfection system has failed.

b. Designated Users

After issuance of this permit, the permittee may provide reuse water to designated users. The permittee may provide reuse water to additional designated users as long as prior written notice is provided to the EPD and a public notice is provided to the community. The additional users list will be considered an addendum to the permit, but the permit will not be reopened to add new designated users. The permittee must keep records of the volume of reuse water provided to designated users.

c. User Agreement

Any designated user receiving reuse water from the permittee must enter into an agreement with the permittee. At a minimum the agreement must address all items which are in EPD's Guidelines for Water Reclamation and Urban Water Reuse (Section 9.2).

d. No Point Source Discharge(s) Of A Pollutant To Surface Waters Of The State

The land application site must be operated and maintained to ensure there is no point source discharge(s) of pollutants to surface waters of the State.

B.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Discharge to Ogeechee River - Outfall #001 (32.200472°, -81.415833°):

a. The discharge from the water reclamation facility shall be limited and monitored by the permittee as specified below starting on the date EPD provides approval of construction completion and written authorization to operate:

Parameters	Discharge limitations in mg/L (lbs/day) unless otherwise specified		Monitoring Requirements		
	Monthly Average	Weekly Average	Measurement Frequency	Sample Type	Sample Location
Flow (MGD) (1)(2)	1.6	2.0	Seven Days/Week	Continuous Recording	Effluent
Five-Day Biochemical Oxygen Demand (3)	5.0 (66.7)	7.5 (83.4)	Three Days/Week	Composite	Influent & Effluent
Total Suspended Solids (3)	5 (66.7)	7.5 (83.4)	Three Days/Week	Composite	Influent & Effluent
Ammonia, as N (4)	1.0 (13.3)	1.5 (16.7)	Three Days/Week	Composite	Effluent
Total Phosphorus, as P (5)	1.0 (13.3)	1.5 (16.7)	Three Days/Week	Composite	Effluent
E. coli (counts/100 mL) (6)	20	40	Two Days/Week	Grab	Effluent

(1) The combined flow to the Ogeechee River, reuse distribution system and land application site (i.e. effluent flow from the mechanical plant) shall not exceed 3.0 MGD (monthly average).

(2) The permittee must maximize the distribution of reuse water and the use of the land application site, when possible, prior to discharging to the Ogeechee River.

(3) Numeric limits only apply to the effluent.

(4) Ammonia, organic nitrogen, nitrate-nitrite, and total Kjeldahl nitrogen (TKN) must be analyzed or calculated from the same sample. Organic nitrogen, as N = TKN – ammonia, as N. Total nitrogen is the sum of all nitrogen and calculated as follows: TN = TKN + nitrite + nitrate.

(5) Total phosphorus and orthophosphate must be analyzed from the same sample.

(6) Effluent samples for E. coli shall be collected at the cascade aerator before discharge to receiving waters.

(Effluent limitations continued on the next page)

B.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

Discharge to Ogeechee River - Outfall #001 (32.200472°, -81.415833°):

Parameters	Discharge limitations in mg/L unless otherwise specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Five-Day Biochemical Oxygen Demand Removal, Minimum (%) (1)	85	See Below	See Below	See Below
Total Suspended Solids Removal, Minimum (%) (1)	85	See Below	See Below	See Below
pH, Daily Minimum – Daily Maximum (Standard Unit)	6.0 – 9.0	Seven Days/Week	Grab	Effluent
Total Residual Chlorine, Daily Maximum (2) (3)	0.50	Seven Days/Week	Grab	Effluent
Dissolved Oxygen, Daily Minimum (3)	6.0	Seven Days/Week	Grab	Effluent
Orthophosphate, as P (4)	Report	One Day/Month	Composite	Effluent
Organic Nitrogen, as N (5)	Report	One Day/Month	Calculated	Effluent
Nitrate-Nitrite, as N (5)	Report	One Day/Month	Composite	Effluent
Total Kjeldahl Nitrogen, as N (5)	Report	One Day/Month	Composite	Effluent
Total Nitrogen, as N (5)	Report	One Day/Month	Calculated	Effluent

(1) Percent removal shall be calculated from monthly average influent and effluent concentrations. Influent and effluent samples shall be collected at approximately the same time.

(2) Monitoring requirements and the effluent limitation for Total Residual Chlorine (TRC) only apply when chlorine is in use at the facility. The permittee must use the appropriate No Data Indicator (NODI) code on the Discharge Monitoring Reports when TRC monitoring is not required.

(3) Effluent samples for total residual chlorine and dissolved oxygen shall be collected after the cascade aerator and before discharge to receiving waters.

(4) Total phosphorus and orthophosphate must be analyzed from the same sample.

(5) Ammonia, organic nitrogen, nitrate-nitrite, and total Kjeldahl nitrogen (TKN) must be analyzed or calculated from the same sample. Organic nitrogen, as N = TKN – ammonia, as N. Total nitrogen is the sum of all nitrogen and calculated as follows: TN = TKN + nitrite + nitrate.

(Effluent limitations continued on the next page)

B.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

Discharge to Ogeechee River - Outfall #001 (32.200472°, -81.415833°):

Parameters	Discharge limitations in mg/L unless otherwise specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Total Recoverable Mercury (ng/L) (1)	Report	See Below	Grab	Effluent
Chronic Whole Effluent Toxicity (%) (2)	Report NOEC	See Below	Composite	Effluent
Priority Pollutants (3)	See Below	See Below	Composite	Effluent
Long-Term Biochemical Oxygen Demand (4)	See Below	See Below	Composite	Effluent
Effluent Testing Data (5)	See Below	See Below	Composite	Effluent

(1) Refer to Part I.C.8. TOTAL MERCURY MONITORING AND REPORTING
Mercury must be analyzed using EPA Method 1631E.

(2) Refer to Part I.C.10. CHRONIC WHOLE EFFLUENT TOXICITY.

(3) Refer to Part I.C.11. PRIORITY POLLUTANTS.

(4) Refer to Part I.C.13. LONG-TERM BIOCHEMICAL OXYGEN DEMAND.

(5) Refer to Part I.C.12. EFFLUENT TESTING DATA.

b. The monthly average, other than for *E. coli*, is the arithmetic mean of values obtained for samples collected during a calendar month.

c. The weekly average, other than for *E. coli*, is the arithmetic mean of values obtained for samples collected during a 7-day period. The week begins 12:00 midnight Saturday and ends at 12:00 midnight the following Saturday. To define a different starting time for the sampling period, the permittee must notify the EPD in writing. For reporting required by Part I.D.1. of this permit, a week that starts in one month and ends in another month shall be considered part of the second month. The permittee may calculate and report the weekly average as a 7-day moving average.

d. *E. coli* will be reported as the geometric mean of the values for the samples collected during the time periods in I.B.1.b. and I.B.1.c.

e. Influent monitoring: Unless otherwise specified, influent samples shall be collected before any return or recycle flows. These flows include returned activated sludge, supernatants, centrates, filtrates, and backwash.

f. Effluent monitoring: Unless otherwise specified, effluent samples shall be collected after the final treatment process and before discharge to receiving waters.

g. A composite sample shall consist of a minimum of 5 subsamples collected at least once every 2 hours for at least 8 hours and shall be composited proportionately to flow.

h. Flow measurements shall be conducted using the flow measuring device(s) in accordance with the approved design of the facility. If instantaneous measurements are required, then the permittee shall have a primary flow measuring device that is correctly installed and maintained. If continuous recording measurements are required, then flow measurements must be made using continuous recording equipment. Calibration shall be maintained of the continuous recording instrumentation to ± 10% of the actual flow.

Flow shall be measured manually to check the flow meter calibration at a frequency of once a month. If secondary flow instruments are in use and malfunction or fail to maintain calibration as required, the flow shall be computed from manual measurements or by other method(s) approved by EPD until such time as the secondary flow instrument is repaired. For facilities which utilize alternate technologies for measuring flow, the flow measurement device must be calibrated semi-annually by qualified personnel.

Records of the calibration checks shall be maintained.

i. If secondary flow instruments malfunction or fail to maintain calibration as required in I.B.1.h., the flow shall be computed from manual measurements taken at the times specified for the collection of composite samples.

j. Some parameters will be reported as "not detected" when they are below the detection limit and will then be considered in compliance with the effluent limit. The detection limit will also be reported.

B.2. LAND TREATMENT SYSTEM (SPRAYFIELDS)

a. TREATMENT REQUIREMENTS, LIMITATIONS, AND MONITORING

i. The discharge shall be limited and monitored as specified below starting on the date EPD provides approval of construction completion and written authorization to operate:

Parameter (units)	Discharge Limitations Monthly (Weekly) average, unless otherwise stated	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location [2]
Flow (MGD), Weekly Average [1]	0.272	Seven Days/Week	Continuous	Influent
Five-Day Biochemical Oxygen Demand (mg/L) [3]	5.0	One Day/Week	Grab	Influent & Effluent
Total Suspended Solids (mg/L) [3]	5	One Day/Week	Grab	Influent & Effluent
E. coli (counts/100 mL) [4][5]	20	Two Days/Week	Grab	Effluent

[1] The combined flow to the Ogeechee River, reuse distribution system and land application site (i.e. effluent flow from the mechanical plant) shall not exceed 3.0 MGD (monthly average).

[2] Influent shall refer to the influent to the treatment facility

Effluent shall refer to the discharge from the mechanical plant to the sprayfields.

[3] Numerical limits only apply to effluent.

[4] *E. coli* counts per individual sample shall not exceed 75/100 mL.

[5] The monitoring frequency for *E. coli* is seven days per week when only one disinfection system is in use at the facility.

(Effluent limitations continued on the next page)

B.2. LAND TREATMENT SYSTEM (SPRAYFIELDS) (CONTINUED)

a. TREATMENT REQUIREMENTS, LIMITATIONS AND MONITORING (CONTINUED)

Parameter (units)	Discharge Limitation Monthly Average (unless otherwise stated)	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Turbidity, Maximum (NTU) [1]	3	Seven Days/Week	Continuous	Effluent
pH (standard units), Daily Minimum & Daily Maximum	6.0 – 9.0	Seven Days/Week	Grab	Effluent
Nitrate, as N (mg/L)	Report	One Day/Month	Grab	Effluent
Total Kjeldahl Nitrogen, as N (mg/L)	Report	One Day/Month	Grab	Effluent

[1] This is an instantaneous maximum limitation. Continuous turbidity monitoring prior to disinfection is required. Treated effluent exceeding 3 NTU shall be rejected.

ii. The land treatment system shall consist of 28 acres. The hydraulic wastewater loading to each spray field must not exceed 2.5 in/week. The instantaneous application rate to each spray field must not exceed 0.25 inches/hour. The hydraulic wastewater loading and instantaneous application rate for each spray field shall be monitored/calculated daily and submitted to EPD in accordance with Part I.A.3 of this permit.

iii. A daily log will be kept by the land treatment system operator of the volume (gal) of wastewater sprayed on each spray field for each day and shall be submitted to EPD in accordance with Part I.A.3 of this permit.

iv. A daily log will be kept by the land treatment system operator of the amount of rainfall received each day within 0.5 miles of the permitted land treatment system and shall be submitted to EPD in accordance with Part I.A.3 of this permit.

v. A written summary of pertinent maintenance for the land treatment system such as planting, cutting vegetation, harvesting, resurfacing areas, etc. shall also be included in the report and submitted in accordance with Part I.A.3 of this permit.

B.2. LAND TREATMENT SYSTEM (SPRAYFIELDS) (CONTINUED)

b. LAND TREATMENT SYSTEM OPERATION

The land treatment system will be operated and maintained in accordance with the design criteria as presented in the approved engineering reports, operation and maintenance manuals, the permit application and/or other written agreements between EPD and the permittee. This includes, but is not limited to, the following:

i. A vegetative cover must be maintained at all times on the land treatment site and must be managed according to design criteria;

ii. All treatment units are to be maintained and operated for maximum efficiency;

iii. Hydraulic and nitrogen loading is to be maintained within design criteria;

iv. Unless otherwise approved, no wastewater shall be applied via spray or aboveground drip irrigation during rain or when the conditions are such that applied wastewater will not be absorbed into the soil; and

v. If the hydraulic application rate(s) cannot satisfactorily be handled by the approved land treatment system, corrective actions shall immediately be taken by the permittee.

vi. The land treatment system may not result in a point source discharge to surface waters, as mandated in the Rules.

B.2. LAND TREATMENT SYSTEM (SPRAYFIELDS) (CONTINUED)

c. GROUNDWATER MONITORING REQUIREMENTS

i. Groundwater shall be monitored by the permittee for the parameters and at the frequency listed below:

Parameter (units)	Discharge Limitations	Measurement Frequency	Sample Type
Depth to Groundwater (feet)	Report	One Day/Month	--
Nitrate, as N (mg/L) (1)	10	One Day/Quarter	Grab
pH (standard unit)	Report	One Day/Quarter	Grab
Specific Conductivity (µmho/cm)	Report	One Day/Quarter	Grab
Escherichia coli (#/100mL) (1)	Zero Positive Samples	One Day/Six Months	Grab

(3) The permittee must sample all monitoring wells and report testing results for each well on the Discharge Monitoring Reports (DMRs). Groundwater leaving the land treatment system boundaries (as defined in this permit as the sprayfield) must not exceed the primary maximum contaminant levels for drinking water. The numerical limitations apply to down-gradient wells only.

ii. Monitoring wells shall be identified in all reports submitted to EPD as up-gradient, midfield, and down-gradient, as referenced below. The down-gradient groundwater monitoring wells shall be considered the compliance wells. The monitoring wells are identified as follows:

Well	Location	Well	Location
U001	Up-gradient	M002	Midgradient
M001	Midgradient	D001	Down-gradient

iii. As per Part I.B.2 and Part II.A.9-10 of this permit, upon written notification to EPD, additional up-gradient, mid-field and down-gradient monitoring wells may be added in accordance with EPD's Manual for Groundwater Monitoring, September 1991, as amended, the Environmental Protection Agency Guidance Design and Installation of Monitoring Wells, or other approved guidance without EPD approval and without modification to this permit. The additional wells are subject to the sampling parameters and sampling frequency(s) in Part I.B.3 of this permit, Groundwater Monitoring Requirements. The sampling analysis of additional wells shall be reported in accordance with Part I.A.3 of this permit.

B.2. LAND TREATMENT SYSTEM (SPRAYFIELDS) (CONTINUED)

d. SOIL MONITORING REQUIREMENTS

i. A Soil Fertility Test(s) shall be performed annually in the fourth (4^{th}) calendar quarter in accordance with the latest edition of Methods of Soil Analysis (published by the American Society of Agronomy, Madison, Wisconsin) or other methods approved by EPD. Representative soil samples shall be collected from the land treatment system using the Mehlich-1 extraction procedure. Results of the Soil Fertility Test(s) shall be utilized by the permittee in the continuing operation and maintenance of the land treatment system. The sampling analysis shall be reported in accordance with Part I.A.3 of this permit.

ii. If the Soil Fertility Test(s) indicates a change in the pH value of one standard unit from the previous year's pH value, the permittee shall immediately perform a Cation Exchange Capacity and Percent Base Saturation analysis for the land treatment system. The monitoring results of the Cation Exchange Capacity and Percent Base Saturation analysis shall be submitted to EPD in accordance with Part I.A.3 of this permit.

iii. Where there are categorical and/or significant industrial discharges to the sewer system, the permittee may be required, upon written notification by the Division, to sample for additional parameters. These parameters may include heavy metals and organic compounds.

B.2. LAND TREATMENT SYSTEM (SPRAYFIELDS) (CONTINUED)

e. SURFACE WATER MONITORING

Surface water adjacent to or traversing the land treatment system shall be monitored for the parameters and at the frequency listed below:

Parameter (units)	Discharge Limitations	Measurement Frequency	Sample Type	Sampling Location [1] [2]
Nitrate, as N (mg/L)	Report	One Day/Quarter	Grab	Upstream & Downstream
Five-Day Biochemical Oxygen Demand (mg/L)	Report	One Day/Quarter	Grab	Upstream & Downstream
Specific Conductivity (µmho/cm)	Report	One Day/Quarter	Grab	Upstream & Downstream
pH (standard units)	Report	One Day/Quarter	Grab	Upstream & Downstream
Total Kjeldahl Nitrogen, as N (mg/L)	Report	One Day/Quarter	Grab	Upstream & Downstream
Temperature (°C)	Report	One Day/Quarter	Grab	Upstream & Downstream
Dissolved Oxygen (mg/L)	Report	One Day/Quarter	Grab	Upstream & Downstream

(1) Surface water samples shall be collected approximately 100 feet upstream and 100 feet downstream of the land treatment system

(2) Surface waters as identified in the Design Development Report and permit application: **Not Applicable**

B.3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – REUSE

Discharge to the reuse distribution system:

The discharge shall be limited and monitored by the permittee as specified below starting on the date EPD provides approval of construction completion and written authorization to operate:

Parameters	Discharge Limitations, Monthly (Weekly) Average Unless Otherwise Specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Flow (MGD) (1) (2)	3.0	Seven Days/Week	Continuous	Effluent
Five-Day Biochemical Oxygen Demand (mg/L) (3)	5.0	One Day/Week	Composite	Influent & Effluent
Total Suspended Solids (mg/L) (3)	5	One Day/Week	Composite	Influent & Effluent
E. coli (counts/100 mL) (4) (5)	20	Two Days/Week	Grab	Effluent

(1) The combined flow to the Ogeechee River, reuse distribution system and land application site (i.e. effluent flow from the mechanical plant) shall not exceed 3.0 MGD (monthly average).

(2) The permittee must keep record of the volume of reuse water provided to each customer.

(3) Numeric limits only apply to the effluent.

(4) *E. coli* counts per individual sample shall not exceed 75/100 mL.

(5) The monitoring frequency for *E. coli* is seven days per week when only one disinfection system is in use at the facility.

Parameters	Discharge Limitations	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Turbidity, Daily Maximum (NTU) (6)	3	Seven Days/Week	Continuous	Effluent
pH, Daily Minimum – Daily Maximum (Standard Units)	6.0 – 9.0	Seven Days/Week	Grab	Effluent

(6) This is an instantaneous maximum limitation. Continuous turbidity monitoring prior to disinfection is required. Treated effluent exceeding 3 NTU shall be rejected.

C. MONITORING AND REPORTING

1. REPRESENTATIVE SAMPLING

Samples and measurements of the monitored waste shall represent the volume and nature of the waste stream. The permittee shall maintain a written sampling and monitoring schedule.

2. SAMPLING PERIOD

a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.

b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.

c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. MONITORING PROCEDURES

All analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. RECORDING OF RESULTS

For each required parameter analyzed, the permittee shall record:

a. The exact place, date, and time of sampling, and the person(s) collecting the sample. For flow proportioned composite samples, this shall include the instantaneous flow and the corresponding volume of each sample aliquot, and other information relevant to document flow proportioning of composite samples;

b. The dates and times the analyses were performed;

c. The person(s) who performed the analyses;

d. The analytical procedures or methods used; and

e. The results of all required analyses.

5. ADDITIONAL MONITORING BY PERMITTEE

If the permittee monitors required parameters at the locations designated in I.B. more frequently than required, the permittee shall analyze all samples using approved analytical methods specified in I.C.3. The results of this additional monitoring shall be included in calculating and reporting the values on the Discharge Monitoring Report forms. The permittee shall indicate the monitoring frequency on the report. The EPD may require in writing more frequent monitoring, or monitoring of other pollutants not specified in this permit.

6. RECORDS RETENTION

The permittee shall retain records of:

a. All laboratory analyses performed including sample data, quality control data, and standard curves;

b. Calibration and maintenance records of laboratory instruments;

c. Calibration and maintenance records and recordings from continuous recording instruments;

d. Process control monitoring records;

e. Facility operation and maintenance records;

f. Copies of all reports required by this permit;

g. All data and information used to complete the permit application; and

h. All monitoring data related to sludge use and disposal.

These records shall be kept for at least three years. Sludge handling records must be kept for at least five years. Either period may be extended by EPD written notification.

7. PENALTIES

Both the Federal and State Acts provide that any person who falsifies or tampers with any monitoring device or method required under this permit, or who makes any false statement, representation, or certification in any record submitted or required by this permit shall, if convicted, be punished by a fine or by imprisonment or by both. The Acts include procedures for imposing civil penalties for violations or for negligent or intentional failure or refusal to comply with any final or emergency order of the Director of the EPD.

8. TOTAL MERCURY MONITORING

Upon receiving EPD authorization to operate, the permittee shall collect and analyze one sample per month for total mercury in the effluent. EPA Method 1631E must be used for mercury analysis. Monitoring for total mercury shall continue for a period of 3 months.

Within 4 months of receiving EPD authorization to operate, the permittee shall submit a report that includes a summary of the effluent data collected as well as copies of all the analytical laboratory reports. The report shall be submitted to the *EPD compliance office* (address listed on the permit cover letter) **AND** to *EPD Wastewater Regulatory Program* at the address below:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1462 East
Atlanta, Georgia 30334

Alternatively, correspondences and documents can be submitted electronically. Contact your EPD compliance office **AND** EPD Wastewater Regulatory Program (404 463 1511) to obtain email for appropriate point of contact.

The data will be reviewed by EPD. If the average concentration of mercury in the effluent causes or contributes to exceedance of the TMDL water quality target for Mercury in the Ogeechee River (i.e., 1.8 ng/L), the permittee may be required to conduct additional monitoring and/or the permit may be modified to include a Total Mercury limit.

9. WATERSHED PROTECTION PLAN

The permittee has a Watershed Protection Plan that has been approved by EPD. The permittee's approved Watershed Protection Plan shall be enforceable through this permit.

Within 3 months of the effective date of the permit, the permittee shall evaluate if their Watershed Protection Plan covers the expanded service area and notify EPD Municipal Permitting Unit and Watershed Planning and Monitoring Program of the results of the evaluation. If the plan must be amended, the permittee will coordinate the Watershed Protection Plan update with EPD Watershed Planning and Monitoring Program.

a. The Watershed Protection Plan provides for the following:

i. The Watershed Protection Plan applies to all basins and subbasins that are served by the facility. The plan utilizes the information generated in the permittee's watershed assessment to establish a baseline of watershed conditions and to provide ongoing long-term monitoring according to the approved plan to either verify that the plan is effective or to modify the plan such that water quality standards will be achieved.

ii. The Watershed Protection Plan includes a schedule for correcting current water quality problems that are causing water quality standards violations. The permittee provides ongoing monitoring to verify that the actions taken to correct the water quality problems are effective.

iii. The permittee has developed and put in place best management practices (BMPs) to prevent future water quality standards violations.

iv. The permittee provides ongoing monitoring to verify that the BMPs are working or to provide the information necessary to modify the BMPs to achieve water quality standards.

b. Each June 30th the permittee is to submit the following to EPD:

i. An annual certification statement documenting that the plan is being implemented as approved. The certification statement shall read as follows: "I certify, under penalty of law, that the Watershed Protection Plan is being implemented. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

ii. All Watershed Plan data collected during the previous year in an electronic format. This data shall be archived using a digital format such as a spreadsheet developed in coordination with EPD. All archived records, data, and information pertaining to the Watershed Protection Plan shall be maintained permanently.

iii. A progress report that provides a summary of the BMPs that have been implemented and documented water quality improvements. The progress report shall also include any necessary changes to the Watershed Protection Plan.

The report and other information shall be submitted to EPD at the address below:

Environmental Protection Division
Watershed Planning and Monitoring Program
2 Martin Luther King Jr. Drive SE
Suite 1462 East
Atlanta, Georgia 30334

10. CHRONIC WHOLE EFFLUENT TOXICITY (WET)

The permittee shall conduct one **chronic** whole effluent toxicity (WET) test for four consecutive quarters after receiving EPD written authorization to commence operation under Part I.B.1 effluent limitations (1.6 MGD), with the first test conducted within 90 days of the authorization. The testing must be conducted in accordance with the most current U.S. Environmental Protection Agency (EPA) chronic aquatic toxicity testing manuals. The referenced document is entitled *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, 4th Edition, U.S. EPA, 821-R-02-013, October 2002. Definitive tests must be run on the same samples concurrently using both an invertebrate species (i.e *Ceriodaphnia dubia*) and a vertebrate species (i.e., *Pimephales promelas*). The testing must include a dilution equal to the facility's instream wastewater concentration (IWC) of 2%.

EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. An effluent discharge will not be considered toxic if the No Observed Effect Concentration (NOEC) is greater than or equal to the Instream Wastewater Concentration (IWC) of 2%. The results of the tests shall be submitted to EPD with the permittee's monthly Discharge Monitoring Reports.

Within 15 months of receiving authorization to operate under Part I.B.1 effluent limitations (1.6 MGD), the permittee shall submit a report to EPD that includes a summary of the effluent data collected as well as copies of all the analytical laboratory reports.

All correspondences and documents shall be submitted to the *EPD compliance office* (address listed on the permit cover letter) **AND** to *EPD Wastewater Regulatory Program* at the address below:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1462 East
Atlanta, Georgia 30334

Alternatively, correspondences and documents can be submitted electronically. Contact your EPD compliance office **AND** EPD Wastewater Regulatory Program (404 463 1511) to obtain email for appropriate point of contact.

Upon receipt of the report, EPD will evaluate the results. If the test results indicate effluent toxicity, the permittee may be required to perform additional tests or studies in accordance with Part I.C.5 of the permit and/or the permit may be modified to include a chronic WET limit.

11. PRIORITY POLLUTANTS

The permittee must conduct one scan of the priority pollutants for three consecutive quarters after receiving EPD written authorization to commence operation under Part I.B.1 effluent limitations (1.6 MGD), with the first scan conducted within 90 days of the authorization. The priority pollutant scans must represent seasonal variation. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E. The results of the tests shall be submitted to EPD with the permittee's monthly Discharge Monitoring Reports.

Within thirteen months of receiving authorization to operate under Part I.B.1 effluent limitations (1.6 MGD), the permittee shall submit a report to EPD that includes a summary of the effluent data collected as well as copies of all the analytical laboratory reports.

All correspondences and documents shall be submitted to the *EPD compliance office* (address listed on the permit cover letter) **AND** to *EPD Wastewater Regulatory Program* at the address below:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1462 East
Atlanta, Georgia 30334

Alternatively, correspondences and documents can be submitted electronically. Contact your EPD compliance office **AND** EPD Wastewater Regulatory Program (404 463 1511) to obtain email for appropriate point of contact.

Upon receipt of the report, EPD will conduct a reasonable potential evaluation. If substances are measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.5 or the permit may be modified to include effluent limitations for priority pollutants.

12. EFFLUENT TESTING DATA

Within 24 months of receiving authorization to operate under Part I.B.1 effluent limitations, the permittee shall complete Table A, Table B, and Table C of the NPDES Application Form 2A (EPA Form 3510 – 2A). Effluent testing data must be based on at least 3 samples. If some of the pollutants in Tables A, B, and C are routinely monitored as part of this NPDES permit requirements, then data collected in the past 12 months must be used to determine daily minimum, daily average, and/or daily maximum.

A copy of EPA Form 3510-2A may be found here:

https://www.epa.gov/npdes/npdes-application-forms

The completed form shall be submitted to the *EPD compliance office* (address listed on the permit cover letter) **AND** to *EPD Wastewater Regulatory Program* at the address below:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1462 East
Atlanta, Georgia 30334

Alternatively, correspondences and documents can be submitted electronically. Contact your EPD compliance office **AND** EPD Wastewater Regulatory Program (404 463 1511) to obtain email for appropriate point of contact.

13. LONG-TERM BIOCHEMICAL OXYGEN DEMAND TESTING

The permittee shall perform a 120-day Long-Term BOD test once during the permit cycle. The test should be performed on an effluent sample collected during the critical period from June 1 through September 30. The results of this test shall be submitted to EPD at least 180 days prior to the permit expiration date to the following address:

Environmental Protection Division
Watershed Planning and Monitoring Program
2 Martin Luther King Jr. Drive SE
Suite 1462 East
Atlanta, Georgia 30334

D. REPORTING REQUIREMENTS

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.

   a. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: https://npdes-ereporting.epa.gov/net-netdmr

   b. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.

   c. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.

   d. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

2. **No later than December 21, 2025,** the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:

   a. Sewage Sludge/Biosolids Annual Program Reports provided that the permittee has an approved Sewage Sludge (Biosolids) Plan;

   b. Pretreatment Program Reports provided that the permittee has an approved Industrial Pretreatment Program in this permit;

   c. Sewer Overflow/Bypass Event Reports;

   d. Noncompliance Notification;

   e. Other noncompliance; and

   f. Bypass

3. OTHER REPORTS

   All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. OTHER NONCOMPLIANCE

   All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. SIGNATORY REQUIREMENTS

   All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

   a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:

      1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:

         i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or

ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.

b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:

1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;

2. The authorization is made in writing by the person designated under (a) above; and

3. The written authorization is submitted to the Director.

c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.

d. Any person signing any document under (a) or (b) above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

PART II

A. MANAGEMENT REQUIREMENTS

1. PROPER OPERATION AND MAINTENANCE

The permittee shall properly maintain and operate efficiently all treatment or control facilities and related equipment installed or used by the permittee to achieve compliance with this permit. Efficient operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. Back-up or auxiliary facilities or similar systems shall be operated only when necessary to achieve permit compliance.

2. PLANNED CHANGE

Any anticipated facility expansions, or process modifications which will result in new, different, or increased discharges of pollutants requires the submission of a new NPDES permit application. If the changes will not violate the permit effluent limitations, the permittee may notify EPD without submitting an application. The permit may then be modified to specify and limit any pollutants not previously limited.

3. TWENTY-FOUR HOUR REPORTING

If, for any reason the permittee does not comply with, or will be unable to comply with any effluent limitations specified in the permittee's NPDES permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the noncompliance and its cause; and

b. The period of noncompliance, including the exact date and times; or, if not corrected, the anticipated time the noncompliance is expected to continue; and

c. The steps taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

4. ANTICIPATED NONCOMPLIANCE NOTIFICATION

The permittee shall give written notice to the EPD at least 10 days before:

a. Any planned changes in the permitted facility; or

b. Any activity which may result in noncompliance with the permit.

5. OTHER NONCOMPLIANCE

The permittee must report all instances of noncompliance not reported under other specific reporting requirements, at the time monitoring reports are submitted. The reports shall contain the information required under conditions of twenty-four hour reporting.

6. OPERATOR CERTIFICATION REQUIREMENTS

a. For reuse plants which do not have automatic diversion:

The operator in responsible charge (ORC) for the facility shall be a Class I Biological Wastewater Operator. On-site operation shall be 24 hours per day, 7 days per week by an on-site operator (OSO) who is certified Class II Biological Wastewater Operator or higher. All Operators (other than the ORC and OSO) shall have a minimum of a Class III Biological Wastewater Operator certification.

b. For reuse plants which have automatic diversion, but do not have an electronic monitoring and alarm system:

The operator in responsible charge (ORC) for the facility shall be a Class I Biological Wastewater Operator. On-site operation shall be by an on-site operator (OSO) who is certified Class II Biological Wastewater Operator or higher for a minimum of 8 hours per day, 7 days per week in conjunction with automatic diversion of reclaimed water that does not meet the turbidity criteria and with the automatic diversion of reclaimed water should any component of the disinfection system fail. All operators (other than the ORC and OSO) shall have a minimum of a Class III Biological Wastewater Operator certification.

c. For reuse plants that have automatic diversion and have an electronic monitoring and alarm system:

The operator in responsible charge (ORC) shall be a Class I Biological Wastewater Operator. On-site operation shall be by an on-site operator (OSO) who is certified Class II Biological Wastewater Operator or higher for a minimum of 4 hours per day, 7 days per week in conjunction with automatic diversion of reclaimed water that does not meet the turbidity criteria and with the automatic diversion of reclaimed water should any component of the disinfection system fail. An operator shall be on call during all periods the plant is unattended and must be able to respond to the plant site within one hour of an alarm. The electronic monitoring and alarm system must record the date and time of all alarms and the date and time of alarm override. All operators (other than the ORC and the OSO) shall have a minimum of a Class III Biological Wastewater Operator certification.

7. LABORATORY ANALYST CERTIFICATION REQUIREMENTS

Laboratory Analysts must be certified in compliance with the Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended.

8. BYPASSING

Any diversion of wastewater from or bypassing of wastewater around the permitted treatment works is prohibited, except if:

a. Bypassing is unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There are no feasible alternatives to bypassing; and

c. The permittee notifies the EPD at least 10 days before the date of the bypass.

Feasible alternatives to bypassing include use of auxiliary treatment facilities and retention of untreated waste. The permittee must take all possible measures to prevent bypassing during routine preventative maintenance by installing adequate back-up equipment.

The permittee shall operate the facility and the sewer system to minimize discharge of pollutants from combined sewer overflows or bypasses and may be required by the EPD to submit a plan and schedule to reduce bypasses, overflows, and infiltration.

Any unplanned bypass must be reported following the requirements for noncompliance notification specified in II.A.3. The permittee may be liable for any water quality violations that occur as a result of bypassing the facility.

9. POWER FAILURES

If the primary source of power to this water pollution control facility is reduced or lost, the permittee shall use an alternative source of power to reduce or control all discharges to maintain permit compliance.

10. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge disposal which might adversely affect human health or the environment.

11. NOTICE CONCERNING ENDANGERING WATERS OF THE STATE

Whenever, because of an accident or otherwise, any toxic or taste and color producing substance, or any other substance which would endanger downstream users of the waters of the State or would damage property, is discharged into such waters, or is so placed that it might flow, be washed, or fall into them, it shall be the duty of the person in charge of such substances at the time to forthwith notify EPD in person or by telephone of the location and nature of the danger, and it shall be such person’s further duty to immediately take all reasonable and necessary steps to prevent injury to property and downstream users of said water.

Spills and Major Spills:

A "spill" is any discharge of raw sewage by a Publicly Owned Treatment Works (POTW) to the waters of the State.

A "major spill" means:

1. The discharge of pollutants into waters of the State by a POTW that exceeds the weekly average permitted effluent limit for biochemical oxygen demand (5-day) or total suspended solids by 50 percent or greater in one day, provided that the effluent discharge concentration is equal to or greater than 25 mg/L for biochemical oxygen demand or total suspended solids.

2. Any discharge of raw sewage that 1) exceeds 10,000 gallons or 2) results in water quality violations in the waters of the State.

"Consistently exceeding effluent limitation" means a POTW exceeding the 30 day average limit for biochemical oxygen demand or total suspended solids for at least five days out of each seven day period during a total period of 180 consecutive days.

The following specific requirements shall apply to POTW's. If a spill or major spill occurs, the owner of a POTW shall immediately:

a. Notify EPD, in person or by telephone, when a spill or major spill occurs in the system.

b. Report the incident to the local health department(s) for the area affected by the incident. The report at a minimum shall include the following:

   i. Date of the spill or major spill;
   ii. Location and cause of the spill or major spill;
   iii. Estimated volume discharged and name of receiving waters; and
   iv. Corrective action taken to mitigate or reduce the adverse effects of the spill or major spill.

c. Post a notice as close as possible to where the spill or major spill occurred and where the spill entered State waters and also post additional notices along portions of the waterway affected by the incident (i.e. bridge crossings, boat ramps, recreational areas, and other points of public access to the affected waterway). The notice at a minimum shall include the same information required in 11(b)(1-4) above. These notices shall remain in place for a minimum of seven days after the spill or major spill has ceased.

d. Within 24 hours of becoming aware of a spill or major spill, the owner of a POTW shall report the incident to the local media (television, radio, and print media). The report shall include the same information required in 11(b)(1-4) above.

e. Within 5 days (of the date of the spill or major spill), the owner of a POTW shall submit to EPD a written report which includes the same information required in 11(b)(1-4) above.

f. Within 7 days (after the date of a major spill), the owner of a POTW responsible for the major spill, shall publish a notice in the largest legal organ of the County where the incident occurred. The notice shall include the same information required in 11(b)(1-4) above.

g. The owner of a POTW shall immediately establish a monitoring program of the receiving waters affected by a major spill or by consistently exceeding an effluent limit, with such monitoring being at the expense of the POTW for at least one year. The monitoring program shall include an upstream sampling point as well as sufficient downstream locations to accurately characterize the impact of the major spill or the consistent exceedence of effluent limitations described in the definition of *"* Consistently exceeding effluent limitation" above. As a minimum, the following parameters shall be monitored in the receiving stream:

i. Dissolved Oxygen;
ii. Bacteria;
iii. pH;
iv. Temperature; and
v. Other parameters required by the EPD.

The monitoring and reporting frequency as well as the need to monitor additional parameters, will be determined by EPD. The results of the monitoring will be provided by the POTW owner to EPD and all downstream public agencies using the affected waters as a source of a public water supply.

h. Within 24 hours of becoming aware of a major spill, the owner of a POTW shall provide notice of a major spill to every county, municipality, or other public agency whose public water supply is within a distance of 20 miles downstream and to any others which could be potentially affected by the major spill.

12. UPSET PROVISION

Provision under 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

B. RESPONSIBILITIES

1. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance is a violation of the Federal Clean Water Act, State Act, and the State Rules, and is grounds for:

a. Enforcement action;

b. Permit termination, revocation and reissuance, or modification; or

c. Denial of a permit renewal application.

2. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense of the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit.

3. INSPECTION AND ENTRY

The permittee shall allow the Director of the EPD, the Regional Administrator of EPA, and their authorized representatives, agents, or employees after they present credentials to:

a. Enter the permittee's premises where a regulated activity or facility is located, or where any records required by this permit are kept;

b. Review and copy any records required by this permit;

c. Inspect any facilities, equipment, practices, or operations regulated or required by this permit; and

d. Sample any substance or parameter at any location.

4. DUTY TO PROVIDE INFORMATION

The permittee shall furnish any information required by the EPD to determine whether cause exists to modify, revoke and reissue, or terminate this permit or to determine compliance with this permit. The permittee shall also furnish the EPD with requested copies of records required by this permit.

5. TRANSFER OF OWNERSHIP

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director in writing at least 30 days in advance of the proposed transfer;

b. An agreement is written containing a specific date for transfer of permit responsibility including acknowledgment that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on. This agreement must be submitted to the Director at least 30 days in advance of the proposed transfer; and

c. The Director does not notify the current permittee and the new permittee within 30 days of EPD intent to modify, revoke and reissue, or terminate the permit. The Director may require that a new application be filed instead of agreeing to the transfer of the permit.

6. AVAILABILITY OF REPORTS

Except for data determined to be confidential by the Director of EPD under O.C.G.A. 12-5-26 or by the Regional Administrator of EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared to comply with this permit shall be available for public inspection at an EPD office. Effluent data, permit applications, permittees' names and addresses, and permits shall not be considered confidential.

7. PERMIT ACTIONS

This permit may be modified, terminated, or revoked and reissued in whole or in part during its term for causes including, but not limited to:

a. Permit violations;

b. Obtaining this permit by misrepresentation or by failure to disclose all relevant facts;

c. Changing any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

d. Changes in effluent characteristics; and

e. Violations of water quality standards.

The filing of a request by the permittee for permit modification, termination, revocation and reissuance, or notification of planned changes or anticipated noncompliance does not negate any permit condition.

8. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

9. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights of either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, or any infringement of Federal, State or local laws or regulations.

10. DUTY TO REAPPLY

The permittee shall submit an application for permit reissuance at least 180 days before the expiration date of this permit. The permittee shall not discharge after the permit expiration date. To receive authorization to discharge beyond the expiration date, the permittee shall submit the information, forms, and fees required by the EPD no later than 180 days before the expiration date.

11. CONTESTED HEARINGS

Any person aggrieved or adversely affected by any action of the Director of the EPD shall petition the Director for a hearing within 30 days of notice of the action.

12. SEVERABILITY

The provisions of this permit are severable. If any permit provision or the application of any permit provision to any circumstance is held invalid, the provision does not affect other circumstances or the remainder of this permit.

13. OTHER INFORMATION

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report form to the Director, it shall promptly submit such facts or information.

14. PREVIOUS PERMITS

All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked on the effective date of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

PART III

INDUSTRIAL PRETREATMENT PROGRAM FOR PUBLICLY OWNED TREATMENT WORKS (POTW)

1. The permittee may establish and operate an approved industrial pretreatment program.

2. If the EPD determines that the permittee is required to develop a local industrial pretreatment program, the permittee will be notified in writing. The permittee shall immediately begin development of an industrial pretreatment program and shall submit it to the EPD for approval no later than one year after the notification.

3. During the interim period between determination that a program is needed and approval of the program, all industrial pretreatment permits shall be issued by the EPD.

4. The permittee shall notify the EPD of all industrial users connected to the system or proposing to connect to the system from the date of issuance of this permit.

5. Implementation of the Pretreatment Program developed by the State can be delegated to the permittee following the fulfillment of requirements detailed in 391-3-6-.09 of the Rules and Regulations for Water Quality Control.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the State.

Technical Contact:

Alex Gramling, Environmental Engineer
alex.gramling@dnr.ga.gov
(470) 524-0657

Draft permit:

- ☒ First issuance
- ☐ Reissuance with no or minor modifications from previous permit
- ☐ Reissuance with substantial modifications from previous permit
- ☐ Modification of existing permit
- ☒ Requires EPA review (Major POTW/non-POTW and/or POTW with an approved industrial pre-treatment program and/or Facility for which the permit includes pollutant trading)

1. FACILITY INFORMATION

1.1 NPDES Permit No.: GA0050361

1.2 Name and Address of Owner/Applicant

Effingham County Board of Commissioners
804 South Laurel Street
Springfield, Georgia 31329

1.3 Name and Address of Facility

South Water Reclamation Facility (WRF)
805 Low Ground Road
Guyton, Georgia 31312
(Effingham County)

1.4 Location and Description of the Discharge (as reported by applicant)

Outfall #	Latitude (°)	Longitude (°)	Receiving Waterbody
001	32.200472	-81.415833	Ogeechee River

1.5 Permitted Design Capacity

Part I.B.1. (Discharge to Ogeechee River): 1.6 MGD
Part I.B.2. (Discharge to land treatment site): 0.272 MGD
Part I.B.3. (Discharge to reuse system): 3.0 MGD

The facility will have a treatment capacity of 3.0 MGD; therefore, the combined flow to Ogeechee River, land treatment site and reuse customers shall not exceed 3.0 MGD

1.6 Facility Classification

Designated as a major facility? ☒ Yes ☐ No

1.7 SIC Code and Description

SIC Code 4952 – Sewerage systems: Establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes as may be provided.

1.8 Description of the Water Pollution Control Plant

Wastewater treatment:

The treatment process will consist of screening, grit removal, biological treatment (oxidation ditch), secondary clarification, tertiary filtration, UV disinfection, chlorination/dechlorination, and post-aeration. Treated effluent will either be discharged to Ogeechee River, land applied on a dedicated site or distributed to reuse customers.

Solids processing:

Sludge will be aerobically digested, dewatered using a belt press and transported to a landfill (Atlantic Waste, 125 Pine Meadow Drive, Pooler, Georgia).

1.9 Type of Wastewater Discharge

☐ Process wastewater ☐ Stormwater
☒ Domestic wastewater ☐ Combined (Describe)
☐ Other (Describe)

1.10 Characterization of Effluent Discharge (as reported by applicant)

This is the first issuance of a permit for the discharge to Ogeechee River; therefore, no effluent data is available at this time. The County is required to submit effluent data no later than 24 months after the facility commences to discharge.

2. APPLICABLE REGULATIONS

2.1 State Regulations

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Municipal/Domestic/POTW	Municipal/Domestic Effluent Discharge	40 CFR 122 40 CFR 125 40 CFR 127 40 CFR 133 40 CFR 136
	Non-Process Water Discharges	40 CFR 122 40 CFR 125 40 CFR 127 40 CFR 136
	Municipal/Domestic Sludge Use and Disposal	40 CFR 122 40 CFR 127 40 CFR 136 40 CFR 257 40 CFR 501 & 503

3. WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of designated use classifications, numeric and or narrative water quality criteria and an antidegradation policy. The designated use classification system identifies the designated uses that each waterbody is expected to achieve, such as drinking water, fishing, or recreation. The numeric and narrative water quality criteria are deemed necessary to support the designated use for each water body. The antidegradation policy represents an approach to maintain and to protect various levels of water quality and uses. Section 391-3-6-.3(5) of the GA Water Quality Control Act provide General Criteria for All Waters, commonly referred to as the narrative water quality standards, and Specific Criteria for Specific Designated Uses. In addition to the General Criteria the Specific Criteria in Section 3.1 below are deemed necessary for this waterbody and shall be required for the specific designated uses.

3.1 Receiving Waterbody Name and Specific Designated Use:

Name: Ogeechee River

Specific Designated Use(s) [391-3-6-.03(6)]:

Fishing:

Propagation of Fish, Shellfish, Game and Other Aquatic Life; primary contact recreation in and on the water for the months of May – October, secondary contact recreation in and on the water for the months of November – April; or for any other use requiring water of a lower quality.

(i) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for water designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

(ii) pH: Within the range of 6.0 - 8.5.

(iii) Bacteria:

1. Estuarine waters:

   For the months of May through October, when primary water contact recreation activities are expected to occur, culturable enterococci not to exceed a geometric mean of 35 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 counts per 100 mL the same 30-day interval.

For the months of November through April, culturable enterococci not to exceed a geometric mean of 74 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 273 counts per 100 mL in the same 30-day interval.

2. All other fishing waters:

   For the months of May through October, when primary water contact recreation activities are expected to occur, culturable E. coli not to exceed a geometric mean of 126 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 counts per 100 mL in the same 30-day interval.

   For the months of November through April, culturable E. coli not to exceed a geometric mean of 265 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 861 counts per 100 mL in the same 30-day interval.

3. The State does not encourage swimming in these surface waters since a number of factors which are beyond the control of any State regulatory agency contribute to elevated levels of bacteria.

4. For waters designated as shellfish growing areas by the Georgia DNR Coastal Resources Division, the requirements will be consistent with those established by the State and Federal agencies responsible for the National Shellfish Sanitation Program. The requirements are found in National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish, 2007 Revision (or most recent version), Interstate Shellfish Sanitation Conference, U.S. Food and Drug Administration.

(iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

3.2 Ambient Information

Outfall ID	30Q3 (cfs)	7Q10 (cfs)	1Q10 (cfs)	Annual Average Flow (cfs)	Hardness (mg $CaCO_3$/L)	Upstream Total Suspended Solids (mg/L)
001	256	110	105	2,169	19 (1)	10 (2)

(1) Hardness value based on EPD's *Hardness in Georgia Waterbodies*, 2021, for Ecoregion 75i – Floodplains and Low Terraces (10th percentile).

(2) Not available. A conservative value of 10 mg/L will be used for the reasonable potential analysis calculations.

3.3 Georgia 305(b)/303(d) List Documents

Ogeechee River	Mill Creek to Black Creek	Ogeechee	Not Supporting	Fish Tissue (Mercury), Fish Tissue (PCBs)	35.3	4a, 5	TMDLs completed Fish Tissue (Mercury) (2005) & DO (2000).
GAR030602020606	Bulloch, Bryan, Effingham	Fishing	1,9,10,55	NP	Miles	2029	

Ogeechee River is listed on the 2024 305(b)/303(d) list as not supporting its designated use (fishing) but TMDLs have been completed for the impacted parameters (mercury, DO).

3.4 Total Maximum Daily Loads (TMDLs)

Fish Tissue (Mercury):

The United States Environmental Protection Agency (US EPA) completed a TMDL for total mercury in the Ogeechee River in 2005. The TMDL specifies a water quality target concentration of 1.8 ng/L. Mercury monitoring has been included in the draft permit. If the concentration of mercury in the effluent causes or contributes to exceedance of the TMDL water quality target for mercury in the Ogeechee River (i.e., 1.8 ng/L), the permittee may be required to conduct additional monitoring and/or the permit may be modified to include a Total Mercury limit.

Dissolved Oxygen:

The United States Environmental Protection Agency (US EPA) completed a TMDL for dissolved oxygen in the Ogeechee River in 2000. However, the TMDL defines the affected segment of Ogeechee River as starting at US Highway 301 to Highway 119. According to 2024 305(b)/303(d) list, the segment in which the proposed discharge is located is outside of the TMDL scope; therefore, no TMDL requirements for dissolved oxygen were included in the draft permit.

3.5 Wasteload Allocation (WLA)

WLA for reissuance was issued on September 1, 2021. Refer to *Appendix A* of the Fact Sheet for a copy of the WLA.

4. PERMIT CONDITIONS AND EFFLUENT LIMITATIONS

4.1 Water Quality Based Effluent Limitations (WQBELs) & Technology Based Effluent Limits (TBELS)

When drafting a National Pollutant Discharge Elimination System (NPDES) permit, a permit writer must consider the impact of the proposed pollutants in a discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state water quality criteria or standards. By analyzing the effect of a pollutant in the discharge on the receiving water, a permit writer could find that technology-based effluent limitations (TBELs) alone will not achieve the applicable water quality standards or protect downstream users. In such cases, the Clean Water Act (CWA) and its implementing regulations require development of water quality-based effluent limitations (WQBELs). WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (fishable/swimmable).

WQBELs are designed to protect water quality by ensuring water quality standards are met in the receiving water and the designated use and downstream uses are protected. On the basis of the requirements of 40 C.F.R §125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality.

TBELs aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the State. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and WQBELs. The NPDES regulations at 40 C.F.R. §125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA section 301(b), that represent the minimum level of control that must be imposed in a permit. The regulation also requires permit writers to include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality.

40 CFR Part §122.44(a)(1) requires that NPDES permits include applicable technology-based limitations and standards, while regulations at § 125.3(a)(1) state that TBELs for publicly owned treatment works must be based on secondary treatment standards and the "equivalent to secondary treatment standards" (40 CFR Part 133). The regulation applies to all POTWs and identifies the technology-based performance standards achievable based on secondary treatment for five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH.

The table below shows the secondary treatment standards:

Parameter	Secondary Treatment Standards	
	30-day Average	*7-day Average*
BOD_5	30 mg/L	45 mg/L
TSS	30 mg/L	45 mg/L
BOD_5 and TSS removal (concentration)	≥ 85%	--
pH (Daily Minimum – Daily Maximum)	6.0-9.0 S.U.	

4.2 Reasonable Potential Analysis (RPA)

EPA regulations at 40 C.F.R. §122.44(d)(1)(i) state, "Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will *cause*, have the *reasonable potential to cause*, or *contribute* to an excursion above any [s]tate water quality standard, including [s]tate narrative criteria for water quality."

EPA regulations at 40 C.F.R. §122.44(d)(1)(ii) require States to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criterion within a state water. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. Georgia has reasonable potential procedures, based upon the specific category of pollutants and/or specific pollutant of concern. Chemical specific and biomonitoring data and other pertinent information in EPD's files will be considered in accordance with the review procedures specified in the GA Rules and Regulations for Water Quality Control, Chapter 391-3-6 in the evaluation of a permit application and in the evaluation of the reasonable potential for a discharge to cause an exceedance in the numeric or narrative criteria.

The term "pollutant" is defined in CWA section 502(6) and 40 C.F.R. §122.2. Pollutants are grouped into three categories under the NPDES program: conventional, toxic, and nonconventional. Conventional pollutants are those defined in CWA section 304(a)(4) and 40 C.F.R.§401.16 (five day-biochemical oxygen demand (BOD_5), total suspended solids (TSS), fecal coliform, pH, and oil and grease). Toxic (priority) pollutants are those defined in CWA section 307(a)(1) and include 126 metals and manmade organic compounds. Nonconventional pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as, but not limited to, chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).

EPD evaluates the data provided in the application and supporting documents. If a pollutant is listed in the following sections of this fact sheet below, the permit writer determined the pollutant is a pollutant of concern and there may be a reasonable potential to cause or contribute to an instream violation of the Georgia water quality standards. If a pollutant is not listed below, EPD determined the pollutant is not a pollutant of concern or has determined, based on the data provided in the application, there is no reasonable potential to cause or contribute to an instream violation of the Georgia water quality standards. An example may be if the applicant reported "not detect" or "below detection limit".

Upon identification of a pollutant of concern by the permit writer, in accordance with 40 C.F.R. §122.44(d)(1)(ii), the permit writer must then perform a reasonable potential analysis using a procedure which has accounted for any combination of the following criteria: existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water to determine if the pollutant and its discharge has the reasonable potential to cause, or contribute to an in-stream excursion above the allowable ambient concentration of a state narrative or numeric criteria within the state's water quality standard for an individual pollutant.

In accordance with 40 C.F.R. §122.44(d)(1)(iii), if the permit writer has determined, using a reasonable potential procedure the pollutant of concern in the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a state numeric or narrative criteria within a state water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant. If the permit writer has determined there is insufficient data, the permit writer might also consider monitoring requirements to collect the additional data related to the presence or absence of a specific pollutant to provide information for further analyses for the development of appropriate numeric or narrative standard.

The conventional, nonconventional, and toxic pollutants listed in the following sections have been identified by the permit writer as pollutants of concern and the permit writer has determined through current practices and procedures one of the following: no additional monitoring or numeric and/or narrative effluent limits are needed; additional monitoring is required; or numeric and/or narrative effluent limits are necessary to protect the receiving water body and its downstream users and those limits have been included in the permit.

The monitoring and sampling locations are prescribed in the permit and determined by the permit writer after considering, at a minimum, the following: type of discharge, specific pollutant, discharge frequency, location of the discharge, receiving waterbody, downstream users, etc.

The sample type, grab vs. composite, is prescribed in the permit and determined by the permit writer after considering, at a minimum, the analytical method required in 40 C.F.R. §136, the type of pollutant, retention time, etc. Grab samples are required for the analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, *E. coli,* or volatile organics.

4.3 Whole Effluent Toxicity (WET)

Chronic WET test measures the effect of wastewater on indicator organisms' growth, reproduction and survival. Effluent toxicity is predicted when the No Observable Effect Concentrations (NOEC) for a test organism is less than the facility's Instream Wastewater Concentration (IWC). WET testing also requires a measure of test sensitivity known as the Percent Minimum Significant Difference (PMSD). See Table below from Section 10.2.8.3 (page 52) of EPA 821-R-02-013 *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, 4th Edition, 2002 for PMSD variability criteria.

TABLE 6. VARIABILITY CRITERIA (UPPER AND LOWER PMSD BOUNDS) FOR SUBLETHAL HYPOTHESIS TESTING ENDPOINTS SUBMITTED UNDER NPDES PERMITS.[1]

Test Method	Endpoint	Lower PMSD Bound	Upper PMSD Bound
Method 1000.0, Fathead Minnow Larval Survival and Growth Test	growth	12	30
Method 1002.0, *Ceriodaphnia dubia* Survival and Reproduction Test	reproduction	13	47
Method 1003.0, *Selenastrum capricornutum* Growth Test	growth	9.1	29

[1] Lower and upper PMSD bounds were determined from the 10th and 90th percentile, respectively, of PMSD data from EPA's WET Interlaboratory Variability Study (USEPA, 2001a; USEPA, 2001b).

PMSD must be calculated for each species tested as follows:

$$\text{PMSD} = \frac{\text{Minimum Significant Data (MSD)}}{\text{Control Mean}} \text{ x } 100\ \%$$

The effluent from the South WRF will not be considered toxic if the No Observed Effect Concentration (NOEC) is greater than or equal to the Instream Wastewater Concentration (IWC) of 2%. If results of the WET tests predict toxicity or are invalid, then the permittee may be required to perform additional WET tests or the permit may be modified to include chronic WET effluent limitations.

The permittee must conduct one whole effluent toxicity (WET) test for four consecutive quarters during the first year after receiving EPD written authorization to commence operation under Part I.B.1 (1.6 MGD) effluent limitations, with the first test being conducted within 90 days of this authorization.

EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. If the test results indicate effluent toxicity or if the tests are invalid, the permittee may be required to perform additional WET tests in accordance with Part I.C.5 of the permit and/or the permit may be modified to include a chronic WET limit.

4.4 Conventional Pollutants

Pollutants of Concern	Basis
pH	The instream wastewater concentration (IWC) is 2%. When the IWC is less than 50%, there is no reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore, pH limits of 6.0-9.0 SU (daily minimum-daily maximum) were included in the draft permit. Refer to Section 4.7.1 below for calculations.
Five-Day Biochemical Oxygen Demand (BOD_5)	A monthly average BOD5 limit of 5.0 mg/L has been included in the draft permit. According to the steady-state dissolved oxygen Georgia DOSAG model, the proposed limit, when combined with the ammonia limit (refer to Section 4.5 below), is protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1 above. Refer to the WLA in *Appendix A* for model inputs. The proposed BOD5 limit is also in accordance with EPD's *Guidelines for Water Reclamation and Urban Water Reuse*, 2022.
Total Suspended Solids (TSS)	A monthly average TSS limit of 5 mg/L has been included in the draft permit. The proposed limit is in accordance with EPD's *Guidelines for Water Reclamation and Urban Water Reuse*, 2022.

4.4 Conventional Pollutants (Continued)

Pollutants of Concern	Basis
Escherichia coli (E. coli)	EPD considers all POTWs, Private and Institutional Developments, and CSO Control Facilities, discharging all or a portion of domestic sanitary wastewater, to have the reasonable potential to cause or contribute to instream water quality standard violations for bacteria, including the conventional pollutant fecal coliform, but also *Escherichia coli,* and Enterococci. EPD has determined these facilities discharge bacteria, wastewater treatment systems are designed to limit bacteria levels in the effluent, and bacteria are highly variable in the receiving stream after treatment. Furthermore, dilution is not considered in EPD's analysis as bacteria have the inherent ability to reproduce in the receiving stream. In accordance with EPD's *Bacteria Equivalency Strategy for Using the Optimal Indicator Organisms for WQS and NPDES Permitting,* 2022 for facilities that are designed to meet reuse standards, a monthly average *E. coli* limit of 20 counts/100 mL has been included in the draft permit. The proposed limits are also in accordance with EPD's *Guidelines for Water Reclamation and Urban Water Reuse*, 2022.

4.5 Nonconventional Pollutants

Pollutants of Concern	Basis
Total Residual Chlorine (TRC)	Chlorine is used for disinfection. A daily maximum TRC limit of 0.50 mg/L has been included in the draft permit. The proposed limit has been determined using the US EPA's chronic TRC criterion of 11 µg/L in the receiving stream after dilution. Refer to Section 4.7.7 below for calculations.
Dissolved Oxygen (DO)	A daily minimum DO limit of 6.0 mg/L has been included in the draft permit. According to the steady-state dissolved oxygen Georgia DOSAG model, the proposed limit is protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1 above.
Ammonia (NH_3)	A monthly average Ammonia limit of 1.0 mg/L has been included in the draft permit. According to the steady-state dissolved oxygen Georgia DOSAG model, the proposed limit, when combined with the monthly average BOD_5 limit (Refer to Section 4.4 above), is protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1 above. A monthly average ammonia limit of 1.0 mg/L is also in accordance with EPD's *NPDES Permitting Strategy for Addressing Ammonia Toxicity*, 2017.

4.5 Nonconventional Pollutants (Continued)

Pollutants of Concern	Basis
Total Phosphorus (TP), Orthophosphate	Total phosphorus measures all forms of phosphorus in a sample (orthophosphate, condensed phosphate, and organic phosphate). Orthophosphate, or reactive phosphorus is the amount of phosphorus available to chemically or biologically react in the environment. Discharges of total phosphorus directly to or within the watershed upstream from waterbodies with total phosphorus water quality standards must undergo an analysis to determine if the discharge of the pollutants has the reasonable potential to cause or contribute to instream water quality standard violations. Based on the pollutant being present in the wastestream, EPD has identified total phosphorus as a pollutant of concern for the following: POTWs, Private and Institutional Developments, CSO Control Facilities, and applicable Non POTWs. Orthophosphate monitoring has been included in the draft permit in accordance with EPD's *Strategy for Addressing Phosphorus in NPDES Permitting*, 2011. See Section 5.11 and 5.12 of this Fact Sheet for additional information. A monthly average TP limit of 1.0 mg/L has been included in the draft permit A monthly average limit of 1.0 mg/L is in accordance with EPD's *Strategy for Addressing Phosphorus in NPDES Permitting*, 2011 for facilities with permitted flow greater than or equal to 1.0 MGD.

4.5 Nonconventional Pollutants (Continued)

Pollutants of Concern	Basis
Total Nitrogen (TN), Total Kjeldahl Nitrogen (TKN), Organic Nitrogen, Nitrate-Nitrite	Discharges of total nitrogen directly to or within the watershed upstream from waterbodies with total nitrogen water quality standards must undergo an analysis to determine if the discharge has the reasonable potential to cause or contribute to instream water quality standard violations. Based on the pollutant being present in the wastestream, EPD has identified total nitrogen as a pollutant of concern for the following: POTWs, Private and Institutional Developments, CSO Control Facilities, and applicable Non POTWs. Monitoring for TKN, organic nitrogen, and nitrate-nitrite has been included in the permit to calculate total nitrogen, quantify nutrient loadings in the Ogeechee River Basin, and provide information for further analyses and development of appropriate numeric or narrative effluent limits. Total nitrogen is the sum of all nitrogen forms or TN = TKN + nitrite + nitrate. Organic nitrogen, as N = TKN – ammonia, as N. Ammonia, organic nitrogen, nitrate-nitrite, and TKN must be analyzed or calculated from the same sample to correctly calculate total nitrogen. See Section 5.11 and 5.12 of this Fact Sheet for additional information.

4.6 Toxics & Manmade Organic Compounds

The permittee must conduct one scan of the priority pollutants for three consecutive quarters after receiving EPD written authorization to commence operation under Part I.B.1 effluent limitations (1.6 MGD), with the first scan conducted within 90 days of the authorization. The priority pollutant scans must represent seasonal variation. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E.

If substances are measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.5 or the permit may be modified to include effluent limitations for priority pollutants.

4.7 Calculations for Effluent Limits

4.7.1 Instream Waste Concentration (IWC):

$$\text{IWC} = \frac{Q_{\text{Effluent}}\ (\text{ft}^3/\text{sec})}{Q_{\text{Effluent}}\ (\text{ft}^3/\text{sec}) + 7Q10\ (\text{ft}^3/\text{sec})}\ \%$$

$$= \frac{2.5}{2.5+110}$$

$$= 2\ \%$$

4.7.2 Flow:

Q = Flow
C = Concentration
M = Mass

Weekly Average Flow:

Q_{Weekly} = Q_{Monthly} (MGD) x 1.25

Refer to *Appendix B* for the calculated results.

4.7.3 Five-Day Biochemical Oxygen Demand:

Weekly Average Concentration:

$[C]_{\text{Weekly}}$ = $[C]_{\text{Monthly}}$ (mg/L) x 1.5

Monthly Average Mass Loading:

M_{Monthly} = Q_{Monthly} (MGD) × $[C]_{\text{Monthly}}$ (mg/L or ppm) × 8.34 (lbs/gal)

Weekly Average Mass Loading:

M_{Weekly} = Q_{Weekly} (MGD) × $[C]_{\text{Monthly}}$ (mg/L or ppm) × 8.34 (lbs/gal)

Refer to *Appendix B* for the calculated results.

4.7.4 Total Suspended Solids:

Weekly Average Concentration:

$[C]_{Weekly}$ = $[C]_{Monthly}$ (mg/L) x 1.5

Monthly Average Mass Loading:

$M_{Monthly}$ = $Q_{Monthly}$ (MGD) × $[C]_{Monthly}$ (mg/L or ppm) × 8.34 (lbs/gal)

Weekly Average Mass Loading:

M_{Weekly} = Q_{Weekly} (MGD) × $[C]_{Monthly}$ (mg/L or ppm) × 8.34 (lbs/gal)

Refer to *Appendix B* for the calculated results.

4.7.5 Ammonia:

Weekly Average Concentration:

$[C]_{Weekly}$ = $[C]_{Monthly}$ (mg/L) x 1.5

Monthly Average Mass Loading:

$M_{Monthly}$ = $Q_{Monthly}$ (MGD) × $[C]_{Monthly}$ (mg/L or ppm) × 8.34 (lbs/gal)

Weekly Average Mass Loading:

M_{Weekly} = Q_{Weekly} (MGD) × $[C]_{Monthly}$ (mg/L or ppm) × 8.34 (lbs/gal)

Refer to *Appendix B* for the calculated results.

Ammonia Toxicity Analysis (freshwater stream only):

The chronic criterion based on *Villosa iris* (rainbow mussel) is determined as follows:

$$CCC = 0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) \times 2.126 \times 10^{0.028 \times (20-MAX(T,7))} \text{ mg/L}$$

Where: pH : pH of receiving stream and discharge
T : Temperature of receiving stream
CCC : Chronic Continuous Concentration

The ammonia effluent limit (monthly average) is then calculated as follows:

$[NH_3]_{\text{Effluent}} =$

$$\frac{(Q_{\text{Effluent}}\ (ft^3/sec)\ +\ 30Q3\ (ft^3/sec)) \times CCC\ (mg/L) - 7Q10(ft^3/sec) \times [NH_3]_{\text{Stream Background}}(mg/L)}{Q_{\text{Effluent}}(ft^3/sec)}$$

Refer to *Appendix C* for detailed calculations.

4.7.6 Total Phosphorus:

Weekly Average Concentration:

$[C]_{\text{Weekly}}$ = $[C]_{\text{Monthly}}$ (mg/L) x 1.5

Monthly Average Mass Loading:

M_{Monthly} = Q_{Monthly} (MGD) × $[C]_{\text{Monthly}}$ (mg/L or ppm) × 8.34 (lbs/gal)

Weekly Average Loading:

M_{Weekly} = Q_{Weekly} (MGD) × $[C]_{\text{Monthly}}$ (mg/L or ppm) × 8.34 (lbs/gal)

Refer to *Appendix B* for the calculated results.

4.7.7. Total Residual Chlorine (TRC):

Daily Maximum Concentration (Water Quality-Based Effluent Limitation):

$$[TRC]_{\text{Effluent}} = \frac{[Q_{\text{Effluent}}\ (ft^3/sec) + 7Q10\ (ft^3/sec)] \times [TRC]_{\text{Stream}}\ (mg/L)}{Q_{\text{Effluent}}(ft^3/sec)}$$

with $[TRC]_{\text{Stream}}$ = 0.011 mg/L

Refer to *Appendix B* for the calculated results.

If calculated limit above exceeds 0.5 mg/L, a daily maximum limit of 0.5 mg/L (technology-based effluent limitation) will be included in the draft permit in accordance with EPD's *Total Residual Chlorine Strategy*, 2010.

4.7.8 Metals

Not applicable

4.8 Comparison & Summary of Water Quality vs. Technology Based Effluent Limits

After determining applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit:

Parameter	WQBELS [1]	TBELS [1]
	Monthly Average	*Monthly Average*
Five-Day Biochemical Oxygen Demand (mg/L)	**5.0**	5
Total Suspended Solids (mg/L)	None	**5**
Total Phosphorus (mg/L)	**1.0**	None
Ammonia (mg/L)	**1.0**	None
Escherichia coli (counts/100 mL)	126	**20**
Dissolved Oxygen (mg/L), Daily Minimum	**6.0**	None
Total Residual Chlorine (mg/L), Daily Maximum	**0.50**	0.50
pH (SU), Daily Minimum-Daily Maximum	**6.0 – 9.0**	6.0 - 9.0

[1] Effluent limits in bold were included in the permit. Refer to Sections 4.4, 4.5, and 4.7 above for more information.

5. OTHER PERMIT REQUIREMENTS AND CONSIDERATIONS

5.1 New Discharge up to 1.6 MGD

5.1.1 Antidegradation Review

As required by Chapter 391-3-6 of the Georgia Water Quality Control Act, applicants seeking a National Pollutant Discharge Elimination System Permit (NPDES), must submit the results of an Antidegradation Analysis for review using EPD's *Antidegradation Implementation Guidelines,* February 2019 as amended, and available for review on our website).

As stated in Section 4 of GA's Antidegradation Implementation Guidelines referenced above, "The alternatives analysis shall evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. The applicant will submit the analysis including its selection of the practicable alternative(s) to be implemented for EPD's approval. Georgia's antidegradation rule does not require the least degrading practicable alternative be selected for implementation. The requirement is for the applicant to examine alternatives and provide to EPD documentation of the alternatives analysis and a reasoned explanation for whichever practicable alternative is ultimately selected for implementation. "Practicable alternatives" is defined in the Georgia Rules for Water Quality Control at 391-3-6-.03(3), as "alternatives that are technologically possible, able to be put into practice, and economically viable" (see also 40 CFR 131.3). An alternative is technologically possible if the technology is currently available. An alternative is economically viable if it can be implemented without unreasonably impacting the financial health of the applicant."

On November 25, 2024, EPD concurred with the County's Anti-Degradation Analysis Report (Report) for a new discharge of up to 1.6 MGD to Ogeechee River. The County has provided population projections based on census data, along with the corresponding flow projections for residential, commercial, and industrial users. These projections justify the proposed volume of wastewater treatment required through 2046.

The Report discusses reasonable alternatives stating that a) the facility is not subject to excessive inflow and infiltration; b) there are no potential reuse customers within five miles not already served by the existing facility; c) discharge via a land application system would require approximately 197 acres of land; and, d) there are no nearby treatment facilities with available capacity within 5 miles.

The County has also documented the financial impacts of the referenced alternatives in the Report. The direct discharge alternative is more feasible than that of a new land treatment system due to land acquisition.

Based on the information provided, EPD determined that the report adequately illustrates that the discharge of treated wastewater to surface waters is necessary to accommodate future growth and is the most economically achievable alternative. Therefore, EPD concurs with the Report's conclusion that requiring a no discharge alternative system for 1.6 MGD of domestic wastewater would not be reasonable or practicable.

5.1.2 Permitting Milestones

- Antidegradation Review (ADR): Concurred with on November 25, 2024.
- Environmental Review & Planning Document (ERPD): Approved on January 13, 2025.
- Design Development Report (DDR): Concurred with on March 3, 2025.

5.2 LAS Permit No. GAJ020016

The County is currently authorized to distribute up to 1.0 MGD to reuse customers and land apply up to 0.272 MGD of treated domestic wastewater under LAS Permit No. GAJ020016.

The proposed permit will allow the County to discharge up to 1.6 MGD to Ogeechee River at a new outfall, land apply up to 0.272 MGD on a dedicated sprayfield and distribute treated effluent to reuse customers. LAS Permit No. GAJ020016 will be rescinded once the County is given authorization to operate under NPDES Permit No. GA0050361. A public comment period for this action is included in the notice for the proposed permit.

5.3 Discharge to the reuse distribution system

The proposed limits are in accordance with EPD standards for reuse water as described below:

Parameter	Treatment Standards
	30-day average unless otherwise specified
BOD_5	5.0 mg/L
TSS	5 mg/L
Escherichia coli (*E. coli*)	20 counts/100 mL 75 counts/100 mL (daily max)
pH (Daily Minimum – Daily Maximum)	6.0-9.0 S.U.
Turbidity (Daily Maximum)	3 NTU

5.4 Long-Term BOD (LTBOD) Test

For facilities with a capacity of 1.0 MGD or greater, a 120-day long-term BOD test should be performed on an effluent sample collected during the critical period from June 1 through September 30; a requirement for long term BOD testing has been included in the draft permit under the B.1 effluent limitations (1.6 MGD).

5.5 Industrial Pretreatment Program (IPP)

The County does not have an approved IPP; therefore, language for establishing an IPP, if necessary, has been included in the draft permit.

5.6 Sludge Management Plan (SMP)

Sludge will be disposed of in a landfill (Atlantic Waste, 125 Pine Meadow Drive, Pooler, Georgia); therefore, a SMP is not required.

5.7 Watershed Protection Plan (WPP)

The County has an approved WPP; however, the County must evaluate if their Watershed Protection Plan (WPP) covers the area that will be served by the new plant. If this is not the case, the WPP must be revised to include the new areas.

5.8 Service Delivery Strategy

Effingham County is in compliance with the Department of Community Affairs approved Service Delivery Strategy for Effingham County.

5.9 Compliance Schedules

Effluent limitations will be applicable immediately upon receiving EPD approval of construction completion and written authorization to operate.

5.10 Anti-Backsliding

The limits in this permit are in compliance with the 40 C.F.R. 122.44(l), which requires a reissued permit to be as stringent as the previous permit.

5.11 Development of a Comprehensive Permitting Strategy for Nutrients

The Clean Water Act (CWA) authorizes EPA and delegated states to develop and implement water quality standards to protect human health and the environment. In 1990, the Georgia General Assembly passed the "Lake Law" (OCGA 12-5-23.1) that authorizes the Environmental Protection Division (EPD) to establish water quality standards for each publicly owned lake or reservoir located wholly or partially within the state of Georgia that have a normal pool level surface average of 1,000 or more acres. The law requires that a comprehensive study of each lake be conducted prior to the adoption of lake and major tributary water quality standards. Since that time, Georgia has evaluated all our waterbodies for nutrients and developed water quality models for our watershed, lakes, and estuaries.

EPD is developing a comprehensive Permitting Strategy for Nutrients (Nutrient Permitting Strategy). The development of the Nutrient Permitting Strategy will allow EPD to update the 2011 Phosphorus Strategy; develop a comprehensive nutrient reduction approach to tackle phosphorus, nitrogen, and their effect on chlorophyll a; and solicit stakeholder and permittee feedback on key strategy elements. EPD anticipates the Nutrient Permitting Strategy will provide some degree of regulatory certainty for point source dischargers and minimize the regulatory burden whereby EPD will be evaluating and establishing WLAs for nitrogen and phosphorus.

The Nutrient Permitting Strategy will complement the work completed over the last several decades and build upon the Nutrient WQS Plan, analyze available ambient and permitted discharge data, determine limiting factors, develop a reasonable potential analysis for total nitrogen and total phosphorus, develop TBELs, and provide a NPDES permit implementation schedule.

Upon completion of the Nutrient Management Strategy, EPD would begin implementing the Strategy by including site-specific nitrogen effluent limits and potentially new and reduced phosphorus limits, as applicable, in point source discharge permits, based on the results of lake and watershed models for those lakes with water quality standards. The development of effluent limits for point source dischargers into or upstream from lakes that currently do not have numeric nutrient criteria will be challenging. For these lakes, EPD may have to develop numeric nutrient targets ahead of establishing lake standards. This will allow a comprehensive evaluation to be performed to assess the discharge of phosphorus and nitrogen from point source dischargers and their effects on chlorophyll a in lakes.

In lieu of including numeric nutrient effluent limits for nitrogen (unless required in a TMDL or wasteload allocation), EPD will include a nutrient optimization permit condition, as appropriate in all domestic wastewater permits and non-POTW permits where nitrogen has been identified as a pollutant of concern or where there is a potential to discharge nutrients. Additionally, EPD will include a specific permit condition to reopen the permit during the 5-year term to include applicable nutrient effluent limits upon completion and implementation of the Nutrient Permitting Strategy.

5.12 Comprehensive Nutrient Optimization Plan

The County is proposing to build a new wastewater treatment plant. Requirements for a Comprehensive Nutrient Optimization Plan (CNOP) to limit discharge of total nitrogen will be included in the next iteration of the permit. This will allow County personnel to become familiar with the new facility and its operation.

6. PERMIT CONDITIONS AND LIMITATIONS FOR LAND TREATMENT SYSTEM

6.1 Pretreatment Limitations and Monitoring

Parameter	Treatment Standards
	30-day average unless otherwise specified
BOD_5	5.0 mg/L
TSS	5 mg/L
Escherichia coli (*E. coli*)	20 counts/100 mL 75 counts/100 mL (daily max)
pH (Daily Minimum – Daily Maximum)	6.0-9.0 S.U.
Turbidity (Daily Maximum)	3 NTU

The proposed limits are in accordance with EPD's *Guidelines for Water Reclamation and Urban Reuse*, 2022:

6.2 Application Rate and Wetted Area

Treated effluent is disposed of via spray irrigation:

Crop:

Pine

Wetted area:

28 acres divided into 3 zones

Application rate:

2.5 in/week

The wetted area and the application rate in the draft permit are in accordance with the DDR approved on February 12, 2004.

Site capacity:

The maximum allowable flow to the spray field is as follows:

$$\text{Site capacity} = \frac{A_{Site}\ (\text{acres}) \times \text{WLR}\ (\text{in/week}) \times 43{,}560\ \text{ft}^2/\text{acre} \times 7.48\ \text{gal/ft}^3}{12\ \text{in/ft}}\ \text{gal/week}$$

$$= \frac{28 \times 2.5 \times 43{,}560 \times 7.48}{12}$$

= 1,900,668 gal/week maximum or 0.272 MGD (7-day average)

A weekly average flow limit of 0.272 MGD has been included in the permit.

6.3 Groundwater Monitoring Requirements

The intent of monitoring is to determine the influence of the land treatment system on the quality of the groundwater. Groundwater leaving the spray field boundaries must meet drinking water maximum contaminant levels (MCLs).

In accordance with EPD requirements for all municipal LAS facilities, groundwater will be monitored for the following parameters:

Parameter (units)
Depth to Groundwater (feet)
Nitrate, as N (mg/L)
pH (standard units)
Specific Conductivity (µmhos/cm)
E. coli (# / 100mL)

Based on the application submitted, it has been determined that monitoring for additional parameters is not required at this time.

Groundwater monitoring at the site is conducted in one upgradient (U001), two midfield (M001, M002), and one downgradient (D001) well.

6.4 Soil Monitoring Requirements

The intent of monitoring is to determine the influence of the treated wastewater on the soil chemistry/composition. It will also aid the permittee with operation and maintenance of the land treatment system.

In accordance with EPD requirements for all municipal LAS facilities, requirements to conduct soil fertility tests, as well as Cation Exchange Capacity and Percent Base Saturation analysis (depending on pH results), have been included in the draft permit.

Based on the application submitted, it has been determined that monitoring for additional parameters is not required at this time.

6.5 Surface Water Monitoring Requirements

The intent of monitoring is to determine if the facility has an impact on perennial surface water adjacent to or traversing the spray fields by comparing results from upstream and downstream samples.

Surface water, if present, will be monitored for the following parameters:

Parameter (units)
Nitrate, as N (mg/L)
Five-Day Biochemical Oxygen Demand (mg/L)
Specific Conductivity (µmho/cm)
pH (standard unit)
Total Kjeldahl Nitrogen (mg/L)
Temperature (°C)
Dissolved Oxygen (mg/L)

There are no perennial surface waters identified in the Design Development Report and permit application.

7. REPORTING

7.1 Compliance Office

The facility has been assigned to the following EPD office for reporting, compliance and enforcement:

Georgia Environmental Protection Division
Coastal District
1050 Canal Road
Brunswick, GA 31525

7.2 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

8. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable

9. PERMIT EXPIRATION

The permit will expire five years from the effective date.

10. PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

10.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1462 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday and on EPD's website accessible through the publicly available Georgia EPD Online System (GEOS) at: https://geos.epd.georgia.gov/GA/GEOS/Public/GovEnt/Shared/Pages/Main/Login.aspx
For additional information, you can contact 404-463-1511.

10.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at *EPDcomments@dnr.ga.gov* within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

10.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.
If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

10.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be found at the following address:

http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0

10.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

FACT SHEET

Appendix A

South Water Reclamation Facility
NPDES Permit No. GA0050361

Waste Load Allocation (WLA)

National Pollutant Discharge Elimination System
Waste Load Allocation Form

Part Background Information

WLA Request Type: Reissuance ☐ Expansion ☐ Relocation ☐ New Discharge ☒

Facility Name: **Effingham County** County: **Effingham** WQMU: **0292**

NPDES Permit No.: Expiration Date: Outfall Number:

Receiving Water: **Ogeechee River** River Basin: **Ogeechee** 10-Digit HUC: **0306020206**

Discharge Type: Domestic ☒ Industrial ☐ Both ☐ Proportion (D:I): Flow(s) Requested (MGD): **2.0 and 3.0**

Level IV Ecoregion: **75i Floodplains and Low Terraces**

Industrial Contributions Type(s):

Treatment Process Description:

Additional Information: (history, special conditions, other facilities): **The WLAs for City of Springfield (0.425, 1.0 & 1.6 MGD), Effingham County (2 & 3 MGD) and Bryan County (1, 2, 4 & 8 MGD) were evaluated at the same time.**

Requested by: **Josh Hayes** Program: **WRP** Program: **May 13, 2021**

Part II: Receiving Water Information

Receiving Water: **Ogeechee River** Designated Use Classification: **Fishing**

Integrated 305(b)/303(d) List: Yes ☒ No ☐ Support: ☐ Not Support: ☒ Criteria: **Fish Tissue (Mercury)**

Total Maximum Daily Load: Yes ☒ No ☐ Parameter(s): **Total Mercury** WLA Complies with TMDL Yes ☒ No ☐

The 2020 305(b)/303(d) list shows the river, from US 301 to Black Creek, which includes the discharges, is affected by the 2000 DO TMDL. However, the TMDL document states the segment of the river affected by the TMDL ends at Hwy 119; which excludes the discharges.

Part Water Quality Model Review Information

Model Type: Uncalibrated ☐ Calibrated ☒ Verified ☐ Cannot be Modeled ☐ Model Length (mi): **241**

Field Data: None ☐ Fair ☐ Good ☒ Excellent ☐

Model and Field Data Description: **Steady-state dissolved oxygen Georgia DOSAG model. Critical streamflows are based on flow data at USGS 02202500 Ogeechee River near Eden.**

Critical Water Temperature:(°C): **31**	Drainage Area (mi²): **2,649**	Mean annual streamflow at discharge (cfs):	**2,169**
7Q10 Yield (cfs/mi²):	Velocity (range fps): **0.53 – 0.55**	30Q3 streamflow at discharge (cfs):	**256**
Effluent Flow Rate (cfs): **3.1, 4.6**	IWC (%): **2.7, 4.0**	7Q10 streamflow at discharge (cfs):	**110**
Slope (range - fpm): **0.5 – 1.6** K1: **0.1** K3: **0.1** K2 (range): **0.09-0.98**		1Q10 streamflow at discharge (cfs):	**105**
SOD: **0.4** Escape Coef. (ft^{-1}): **0.054** f-Ratio (BOD_u/BOD_5) **2.54**			

WLAs for Springfield, Effingham County and Bryan County were modeled at the same time. Model parameters are for reaches downstream from these discharges. The model predicted the recommended BOD_5, ammonia and DO limits meet instream DO criteria of 5.0 mg/L.

Part IV: Recommended Permit Limitations and Conditions (mg/L as a monthly average except as noted)

Rationale: Same as current ☐ Revised ☐ New ☒

Location: **Ogeechee River (32.2067, -81.4149, ~11.3 miles downstream from Highway 119)**

Effluent Flow Rate (MGD)	BOD_5	NH_3-N	DO (minimum)	Fecal E. coli (No./100ml)	TRC (daily max)	pH (std. units)	Total P	Ortho-P, NO_3NO_2, TKN	Organic Nitrogen
~~2.0~~ 1.6	**5.0**	**1.0**	**6.0**	~~200~~ 265 20	~~0.40~~ 0.5	**6.0 – 9.0**	**1.0**	**Monitor**	**Calculated**
3.0	**5.0**	**1.0**	**6.0**	~~200~~ 200 20	**0.27**	**6.0 – 9.0**	**1.0**	**Monitor**	**Calculated**

Additional Comments:

- **Priority pollutant permit limits, aquatic toxicity testing requirements and other parameters required by the categorical effluent guidelines are to be determined by the Wastewater Regulatory Program.**
- **To support the goal of the Coastal Georgia Water and Wastewater Management Permitting Plan for Managing Saltwater Intrusion of maximizing water reuse measures, it is recommended that the facility's design allow flexibility for conversion to a reuse facility. Effluent limits for the reuse effluent will be determined by the Wastewater Regulatory Program.**
- **Communities requesting new surface water discharges are required to prepare Watershed Assessments (WA) and Watershed Protection Plans (WPP) for the watersheds in their jurisdictions. The WA and WPP must be reviewed and approved by the Georgia Environmental Protection Division prior to operating the proposed discharges.**
- **Effluent monitoring of Ortho-P, TKN, and nitrate-nitrite is recommended. Total P and Ortho-P should be analyzed from the same effluent sample. Ortho-P is a component of TP and should always be less than or equal to TP. The nitrogen constituents should be analyzed from the same effluent sample. Organic N should be calculated as TKN minus ammonia.**

Prepared by: **Azarina Carmical** AC Date: **June 1, 2021** | Reviewed by: **Josh Welte** JW Date: **24.Aug.21**

Part V: Program Manager Comments

Elizabeth C Booth

Elizabeth Booth Date: **9/1/2021**

FACT SHEET

Appendix B

South Water Reclamation Facility
NPDES Permit No. GA0050361

Effluent Limit Calculations

FACT SHEET

Appendix B

South WRF

NPDES Permit No. GA0050361

Effluent Limitations Calculations: 7Q10: 110 cfs

	Monthly Average Limits				Weekly Average Limits			
Permitted Flow (MGD):	1.6	MGD			2.0	MGD		
	Concentration		Mass Loading		Concentration		Mass Loading	
Five-Day Biochemical Oxygen Demand	5.0	mg/L	66.7	lb/day	7.5	mg/L	83.4	lb/day
Total Suspended Solids	5	mg/L	66.7	lb/day	7.5	mg/L	83.4	lb/day
Ammonia, as N	1.0	mg/L	13.3	lb/day	1.5	mg/L	16.7	lb/day
Total Phosphorus, as P	1.0	mg/L	13.3	lb/day	1.5	mg/L	16.7	lb/day

	Daily Maximum Limits	
Total Residual Chlorine	0.50	mg/L

Refer to Section 4.0 of the Fact Sheet for conversion factors and equations used.

FACT SHEET

Appendix C

South Water Reclamation Facility
NPDES Permit No. GA0050361

Ammonia Toxicity Analysis

Ammonia Toxicity Analysis
for
Waste Load Allocation Development

Date: 4/29/2021
Facility: Effingham County
NPDES Permit Number: New Discharge
Receiving Stream: Ogeechee River
Comments: New Discharge (1.6 MGD)

Background data based on RV_02_308 Ogeechee River at Hwy 80 near Eden

Stream and Facility Data:

Background Stream pH (standard units):	7.2	
Effluent pH (standard units):	9.0	
Final Stream pH (standard units):	7.20	
Stream Temperature (Celsius):	31	
30Q3 Streamflow (cfs):	256	
Stream background concentration (Total NH3-N, mg/L):	0.1	
Facility Discharge (MGD/cfs):	1.6	2.48
Total Combined Flow (cfs):	258.48	

Effluent concentration (Total NH3-N, mg/L) = 77.9

If 77.9 is greater than 17.4 mg/L, use 17.4 mg/L in WLA modeling.

Chronic Criterion based on Villosa iris (Rainbow mussel):

Instream CCC = criterion continuous concentration (chronic criterion):

$$CCC = 0.8876 \times \left(\frac{0.0278}{1 + 10^{(7.688 - pH)}} + \frac{1.1994}{1 + 10^{(pH - 7.688)}}\right) \times \left(2.126 \times 10^{0.028 \times (20 - MAX(T,7))}\right)$$

Allowable instream concentration CCC (Total NH3-N, mg/l) = 0.84

Based on National Criterion For Ammonia In Fresh Water As Revised In Year 2013

Source: Aquatic Life Ambient Water Quality Criteria for Ammonia - Freshwater 2013, U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology, EPA-822-R-13-001. April 2013. Washington, D.C.

FACT SHEET

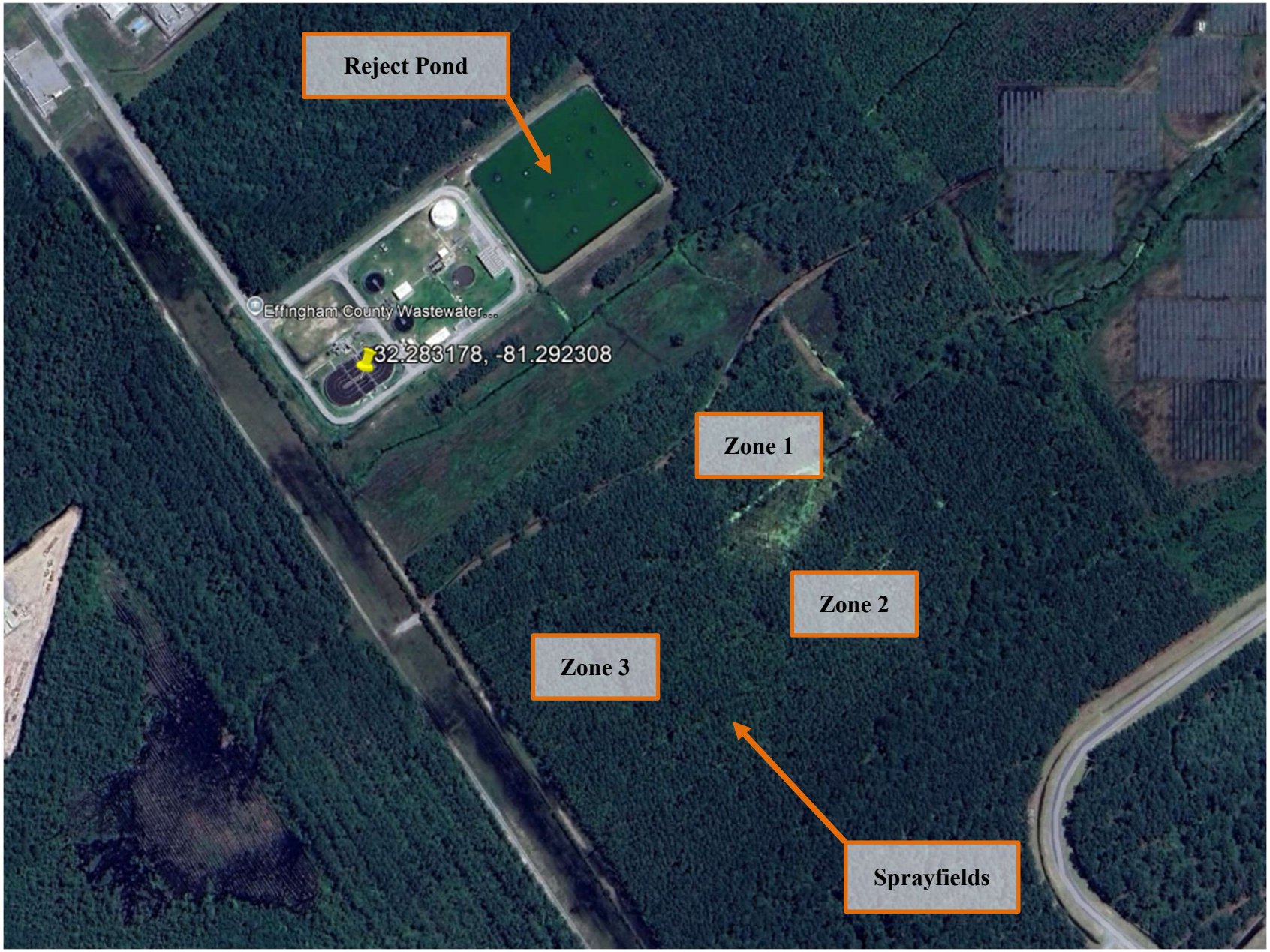
Appendix D

South Water Reclamation Facility
NPDES Permit No. GA0050361

Sprayfield Location Map

South Water Reclamation Facility
NPDES Permit No. GA0050361

Prepared By: Alex Gramling
Date: December 2024



Source: Google, 2024